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GENERAL AVIATION ACTIVITY AND AVIONICS SURVEY(U)

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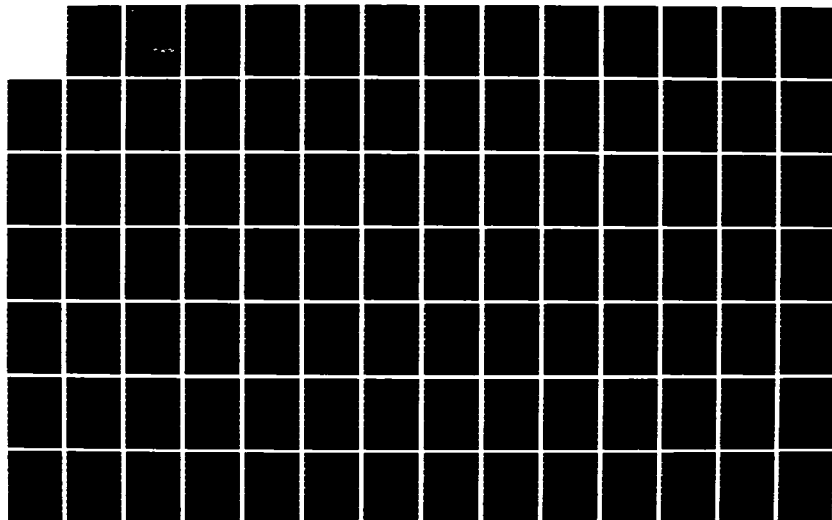
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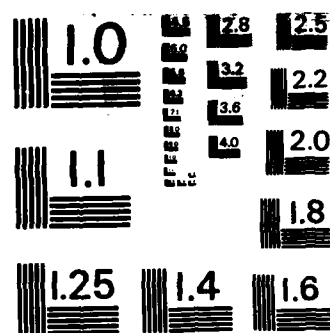
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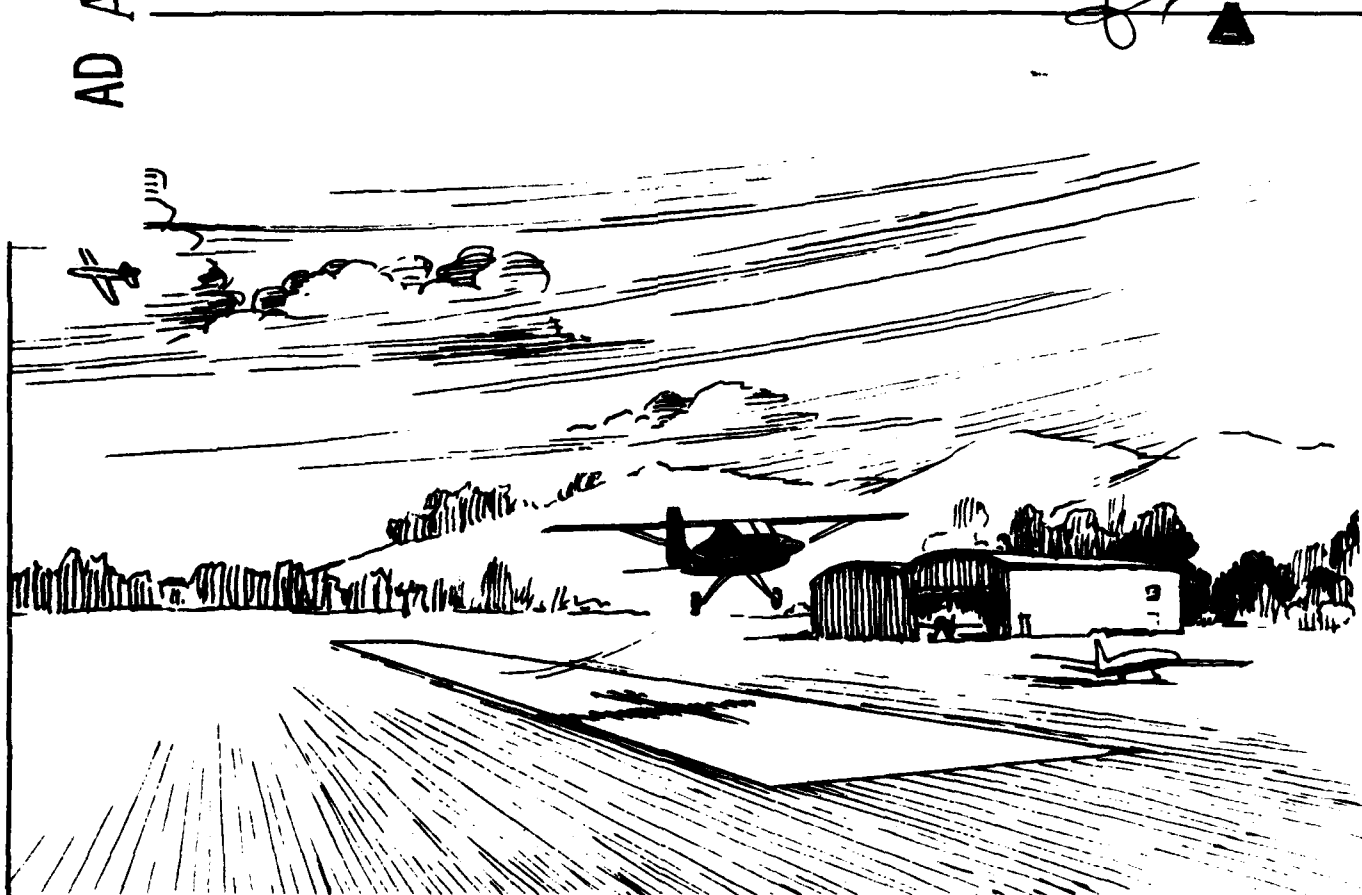
# General Aviation Activity and Avionics Survey

AD A139936

Annual Summary Report  
1982 Data

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APR 10 1984



December 1983

Report No. FAA-MS-83-5  
DOT-TSC-FAA-83-3

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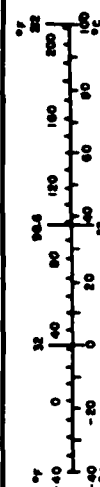
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16. Abstract <p>This report presents the results and a description of the 1982 General Aviation Activity and Avionics Survey. The survey was conducted during 1983 by the FAA to obtain information on the activity and avionics of the United States registered general aviation aircraft fleet, the dominant component of civil aviation in the U.S. The survey was based on a statistically selected sample of about 10.2 percent of the general aviation fleet and obtained a response rate of 68 percent. Survey results are based upon responses but are expanded upward to represent the total population.</p> <p>Survey results revealed that during 1982 an estimated 36.5 million hours of flying time were logged by the 209,779 active general aviation aircraft in the U.S. fleet, yielding a mean annual flight time per aircraft of 174 hours. The active aircraft represented about 82 percent of the registered general aviation fleet. The report contains breakdowns of these and other statistics by manufacturer/model group, aircraft type, state and region of based aircraft, and primary use. Also included are fuel consumption, lifetime airframe hours, avionics, and engine hours estimates. In addition, tables are included for detailed analysis of the avionics capabilities of the GA fleet.</p>					
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# METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures				Approximate Conversions from Metric Measures			
Symbol	When You Know	Multiply by	Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				<b>LENGTH</b>			
in	inches	2.5	cm	centimeters	0.04	inches	in
ft	feet	30	m	meters	0.4	feet	ft
yd	yards	0.9	m	meters	1.1	yards	yd
mi	miles	1.6	km	kilometers	0.6	miles	mi
<b>AREA</b>				<b>AREA</b>			
sq in	square inches	6.5	sq cm	square centimeters	0.16	square inches	sq in
sq ft	square feet	0.09	sq m	square meters	1.2	square yards	sq yd
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ac	acres	0.4					
<b>MASS (weight)</b>				<b>MASS (weight)</b>			
oz	ounces	28	g	grams	0.035	ounces	oz
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short ton (2,000 lb)	short tons	0.9	t	tonnes (1,000 kg)	1.1	short tons	st
<b>VOLUME</b>				<b>VOLUME</b>			
teaspoon	teaspoons	5	ml	milliliters	0.03	fluid ounces	fl oz
tablespoon	tablespoons	15	ml	milliliters	2.1	pints	pt
fluid ounce	fluid ounces	30	ml	milliliters	1.06	quarts	qt
cup	cups	0.24	l	liters	1.06	gallons	gal
pint	pints	0.47	l	liters	0.26	cubic feet	cu ft
quart	quarts	0.96	l	liters	36	cubic yards	cu yd
gallon	gallons	3.8	l	liters	1.3		
quart	quarts	0.95	m <sup>3</sup>	cubic meters			
gallon	gallons	0.83					
cubic foot	cubic feet	0.76					
cubic yard	cubic yards						
<b>TEMPERATURE (exact)</b>				<b>TEMPERATURE (exact)</b>			
°F	Fahrenheit temperature	5/9 (after subtracting 32)	°C	°C	5/9 (then add 32)	Fahrenheit temperature	°F



## PREFACE

**This report presents the results of the 1982 General Aviation Activity and Avionics Survey. The survey is the continuation of an FAA data collection program to gain information on the activities and avionics equipment of the general aviation aircraft fleet. The results represent the cumulative effort of several agencies within the Department of Transportation. Within the FAA, the Information and Statistics Division sponsored and coordinated the activities associated with the survey. The Transportation Systems Center (TSC), under Project Plan Agreement with the FAA, developed the sample design and computer system for sample selection, data editing and estimation of results, ran the system during survey production, analyzed survey results, and prepared the survey report. TSC transferred the survey responses to machine readable forms and was also responsible for printing names, addresses, and aircraft information on the survey questionnaires.**

**The authors would like to acknowledge contributions to this report by: Nicholas Soldo, Carolyn Edwards, and Patricia Carter, AMS-220, who guided the project and reviewed the report text; and Marilyn Marotta of Systems Development Corporation, who revised the computer programs for the 1982 survey and performed the production runs to produce the estimates contained in this report.**

**Distribution: ZMS-348D.**

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## EXECUTIVE SUMMARY

This report presents the results of the sixth General Aviation Activity and Avionics Survey, conducted in 1983 by the Federal Aviation Administration to obtain information on the activities and avionics of the 1982 general aviation aircraft fleet, the major component of civil aviation in the United States. The FAA selected a statistically designed sample of about 10.2 percent of the registered general aviation fleet to participate in the survey. The sampled aircraft represented all states and FAA regions, and all of the major manufacturer/model groups of aircraft. The survey was conducted through a mailed questionnaire, yielding in total a response rate of 68 percent.

Some important survey findings appear below:

- o An estimated 36.5 million hours of flying time were logged by the 209,779 active general aviation aircraft in the U.S. fleet during 1982. There was a 1.6 percent decrease in the number of active aircraft from 1981 to 1982. The active aircraft had a mean flight time per aircraft of 174 hours and represented about 82 percent of the registered general aviation fleet.
- o Turbojet aircraft flew a mean of 404 hours during 1982, more than any other aircraft type. This marks a deviation from prior years, when turboprops flew the highest level of mean hours per aircraft. Turboprop aircraft were second this year, with a mean of 396 hours. Twin engine turboprops with thirteen or more seats flew almost 853 hours per aircraft. In contrast, single engine piston powered aircraft with less than four seats averaged approximately 145 hours.
- o The most common primary use of general aviation aircraft was personal for an estimated 45 percent of the active fleet, followed by business for 23 percent of the fleet, and executive for almost 8 percent of the fleet.
- o The most populous region in terms of based aircraft was the Great Lakes Region, which housed an estimated 18 percent of all registered general aviation aircraft, followed closely by the Western-Pacific Region with 16.7 percent. The most populous state was California, which housed 13 percent of the registered aircraft.
- o Over 84 percent of the general aviation aircraft had two-way VHF communication equipment, 64 percent were equipped with 4096-code transponders, about 56 percent had at least one component of an instrument landing system, and 80 percent had some form of navigation equipment.
- o An estimated 24.5 percent of general aviation aircraft had avionics equipment enabling them to fly above 18,000 feet in positive controlled airspace. Approximately 68.4 percent of the GA fleet could not fly above 12,500 feet due to avionics limitations alone.

- o An estimated 42 percent of the active general aviation fleet flew by instrument flight rules (IFR) at some time during 1982.
- o Over 75 percent of the total hours logged by the 1982 general aviation fleet were flown in visual meteorological (VM) conditions during the day. Aircraft flown in VM night, instrument meteorological (IM) day, and IM night conditions accounted for 11 percent, 10 percent, and 4 percent of the total hours flown, respectively.
- o The general aviation aircraft fleet consumed an estimated 1,335 million gallons of fuel during 1982, 448 million gallons of aviation gasoline and 887 million gallons of jet fuel.

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## 1. INTRODUCTION

### 1.1 GENERAL

#### 1.1.1 Purpose of Survey

The purpose of the General Aviation Activity and Avionics Survey is to provide the Federal Aviation Administration (FAA) with information on the activity and avionics of the general aviation fleet. Figure 1.1 underscores the importance of general aviation to the United States civil air fleet. During calendar year 1982 general aviation composed over 98 percent of the U.S. civil air fleet<sup>1</sup>, accounted for 81 percent of civil operations at FAA towered airports<sup>2</sup>, and logged over 84 percent of the total hours flown by the U.S. civil air fleet<sup>3</sup>. The information obtained from the survey enables the FAA to monitor the general aviation fleet so that it can, among other activities, anticipate and meet demand for National Airspace System facilities and services, assess the impact of regulatory changes on the general aviation fleet, and implement measures to assure the safe operation in the airspace of all aircraft.

#### 1.1.2 Background

Prior to the current survey method, the FAA used the Aircraft Registration Eligibility, Identification, and Activity Report, AC Form 8050-73, in its data collection program on general aviation activity and avionics. The form, sent annually to all owners of civil aircraft in the U.S., served two purposes: (1) Part 1 was the mandatory aircraft registration renewal form, (2) Part 2 was voluntary and applied to general aviation aircraft only, asking questions on the owner-discretionary characteristics of the aircraft such as flight hours, avionics equipment, base location, and use. In 1978, the FAA replaced AC Form 8050-73 with a new system: Part 1 was replaced by a triennial registration program; Part 2 was replaced by the General Aviation Activity and Avionics Survey, FAA Form 1800-54. (See Appendix A.3.) The survey was to be conducted annually based on a statistically selected sample of general aviation aircraft, requesting the same type of information as Part 2 of AC Form 8050-73. The first General Aviation Activity and Avionics Survey took place in 1978, collecting data on the 1977 general aviation fleet. The 1982 statistics in this report were derived from the sixth survey, which took place in 1983. Benefits resulting from the new method of data collection included quicker processing of the results, improved data quality, and a considerable savings in time and money to both the public and the Federal Government.

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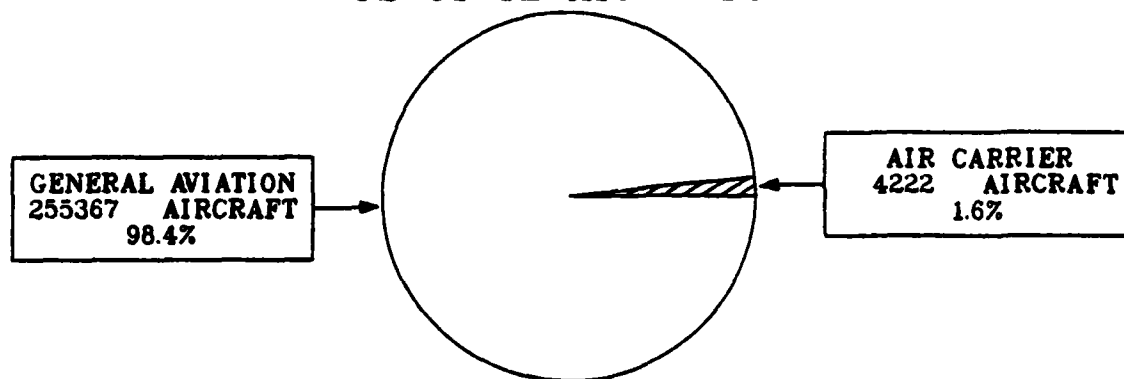
<sup>1</sup>Census of U.S. Civil Aircraft, Calendar Year 1982, U.S. Department of Transportation, Federal Aviation Administration, (Washington, DC, 1983), p. 4.

<sup>2</sup>"FAA Air Traffic Activity, Calendar Year 1982 Report," Federal Aviation Administration, (Washington, DC, 1983).

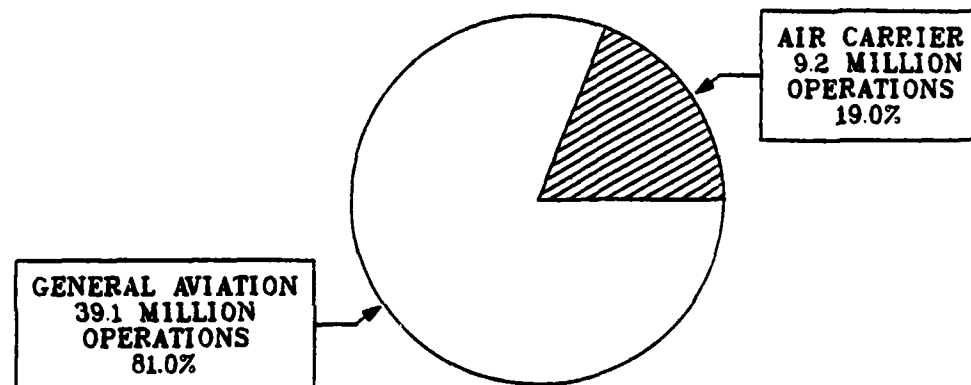
Note: General aviation as used in this report combines both general aviation and air taxi from the source above.

<sup>3</sup>Air Carrier: Census of U.S. Civil Aircraft, Calendar Year 1982, U.S. Department of Transportation, Federal Aviation Administration, (Washington, DC, 1983), p. 21. General Aviation: Table 2.4

## US CIVIL AIR FLEET



## CIVIL OPERATIONS AT FAA TOWERED AIRPORTS



## FLYING TIME

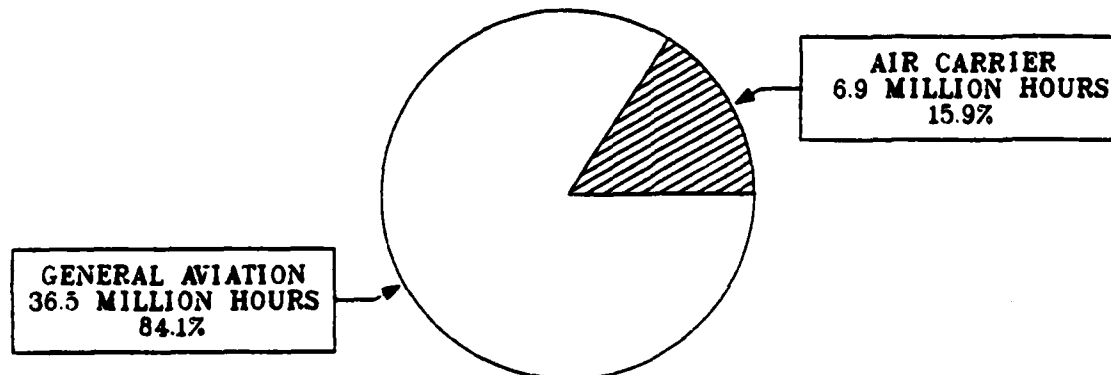


FIGURE 1-1. A CONTRAST OF GENERAL AVIATION AND AIR CARRIER ACTIVITY IN 1982

## 1.2 SURVEY COVERAGE

### 1.2.1 Aircraft

The General Aviation Activity and Avionics Survey covers, through a stratified probability sample, all general aviation aircraft registered in the United States. The term "general aviation," as used for this survey, is defined as all aircraft in the U.S. civil air fleet except those operated under Federal Aviation Regulations Parts 121 and 127. These two parts cover the operations of fixed wing aircraft and rotorcraft, respectively, that 1) have been issued a certificate of public convenience and necessity by the Civil Aeronautics Board authorizing the performance of scheduled air transportation over specified routes and a limited amount of nonscheduled operations, and 2) are used by large aircraft commercial operators. General aviation thus includes aircraft operated under:

Part 91: General operating and flight rules.

Part 123: Certification and operations: air travel clubs using large airplanes.

Part 133: Rotorcraft external load operations.

Part 135: Air taxi operators and commercial operators of small aircraft.

Part 137: Agricultural aircraft operations.

General aviation offers such varied services as air taxi, air cargo, industrial, agricultural, business, personal, instructional, research, patrol, and sport flying. General aviation aircraft range in complexity from simple gliders and balloons to four engine turbojets.

Certain aircraft meeting the general aviation criteria have been excluded from the survey. This group consists of aircraft registered to dealers, aircraft in the process of being sold or with registration pending, and aircraft for which not enough information was available to categorize them properly for sampling purposes.

### 1.2.2 Geographic

The sample survey covers general aviation aircraft registered with the United States Aircraft Registry as of December 31, 1982. Over 99 percent of these aircraft are registered to owners living in the 50 states and Washington, D.C., with about 0.15 percent (372 aircraft) registered in Puerto Rico and other U.S. territories, and 0.45 percent (1,161 aircraft) registered to owners living in foreign countries<sup>1</sup>.

### 1.2.3 Content

Appendix A.3 contains a copy of the survey questionnaire, FAA Form 1800-54. The questionnaire requests the owner to provide the following information on the sampled aircraft's characteristics and uses for various periods:

---

<sup>1</sup>Source: FAA Aircraft Registration Master File as of December 31, 1982.

- 1) Hours by use, IFR hours, percentage of hours flown in Instrument Meteorological (IM) and Visual Meteorological (VM) conditions during the day and evening, and fuel consumption for entire calendar year 1982,
- 2) Airframe hour reading and location of aircraft base as of December 31, 1982, and
- 3) Avionics equipment currently on board.

### 1.3 SURVEY METHOD

The method of collecting data for this survey was the mail questionnaire, sent to the owners of the sampled aircraft in two mailings. The first mailing in February, 1983, covered all 26,067 aircraft in the sample and had a response rate of 57 percent as shown in Table 1-1. This was about 85 percent of the total responses to the survey. The second mailing conducted in March, 1983, included only those aircraft in the sample that had not yet responded. The second mailing had a response rate of 25 percent which accounted for 15 percent of the total responses to the survey. The combined response rate for the two mailings was 68 percent.

TABLE 1-1. SUMMARY OF RESPONSE INFORMATION BY SURVEY PHASE

SURVEY PHASE	SAMPLE SIZE (S)	NUMBER OF RESPONSES (R)	RESPONSE RATE (R/S X 100%)	PORTION OF TOTAL RESPONSE (R/TOTAL R X 100%)
FIRST MAILING	26,067	14,984	57%	85%
SECOND MAILING	10,868	2,716	25%	15%
TOTAL	26,067	17,700	68%	100%

## 1.4 SUMMARY OF SURVEY RESULTS

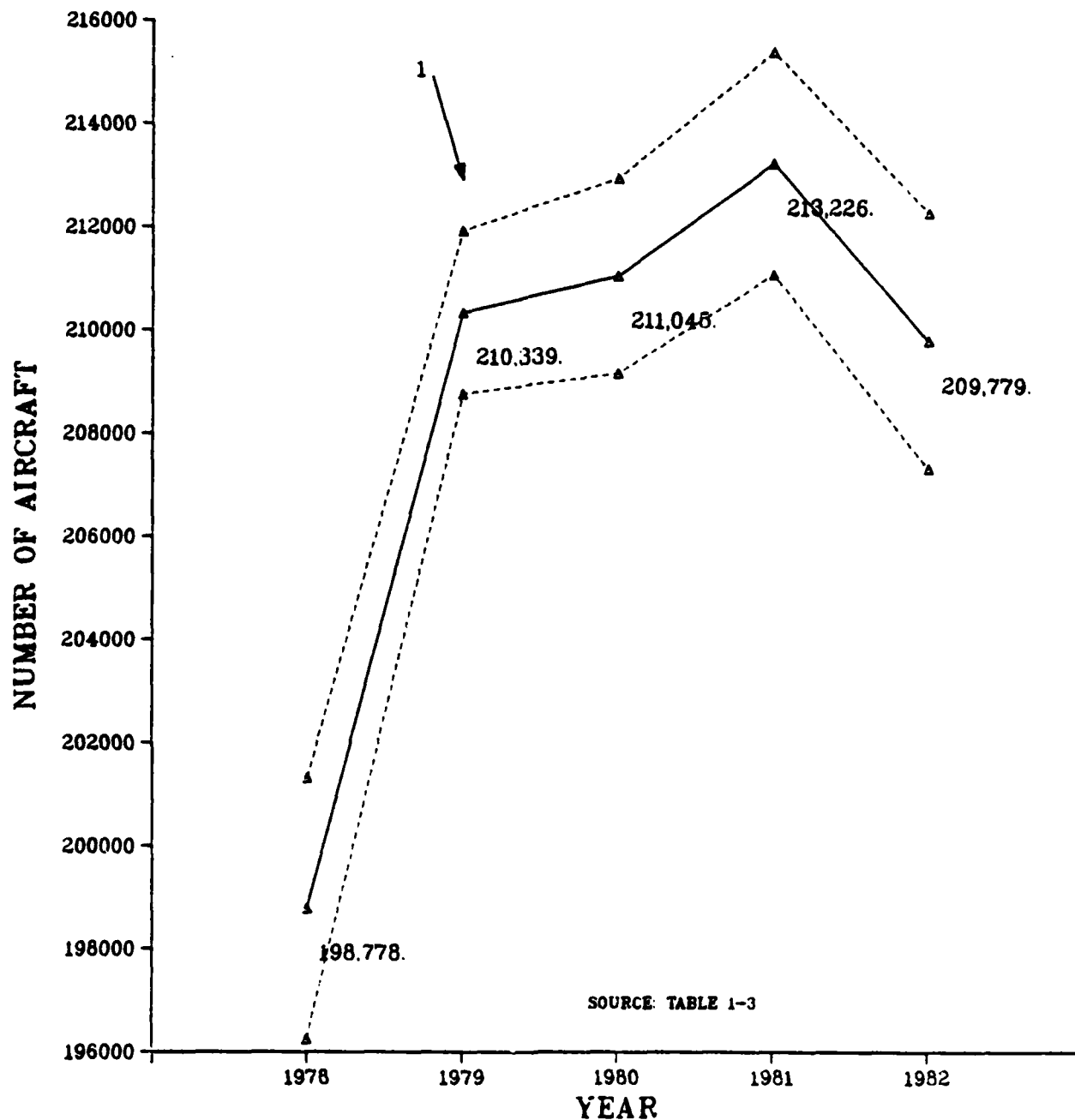
### 1.4.1 National Scene

Results of the General Aviation Activity and Avionics Survey at the national level revealed that during 1982 an estimated 36.5 million hours of flying time were logged by the 209,779 active general aviation aircraft in the U.S. fleet, yielding a mean annual flight time per aircraft of 174 hours. These aircraft comprised 82 percent of the registered general aviation fleet. The statistics for 1982 showed a 10.3 percent decrease in flying hours, a 1.6 percent decrease in the number of active aircraft in the general aviation fleet, and a 7.5 percent decrease in mean hours per aircraft over the comparable figures for 1981. Longer-term trends for these variables are found in Figures 1.2, 1.3, and 1.4. Activity estimates for 1982 indicate an overall slowing in the growth of general aviation activity. The decrease seen in hours flown can most likely be attributed to the decline in the economy and rising aircraft operational costs. Other general aviation activity measures showed trends similar to those seen in the General Aviation Activity and Avionics Survey. For example, general aviation operations at FAA towered airports decreased by 16.6 percent from 1981 to 1982. Some of this decrease may be attributed to the air traffic controller strike which occurred during 1981. On August 3, 1981, about 11,000 controllers failed to report to work and were subsequently fired. The resultant reduced work force caused the FAA to institute certain constraints on users of the National Airspace System to assure safe and efficient operations. The strike affected traffic levels during 1982 as well as the last five months of 1981. Reductions in traffic levels due to restrictions imposed by the FAA cannot be measured precisely, because of the effects of other variables which impact traffic volumes.

### 1.4.2 Results by Aircraft Type

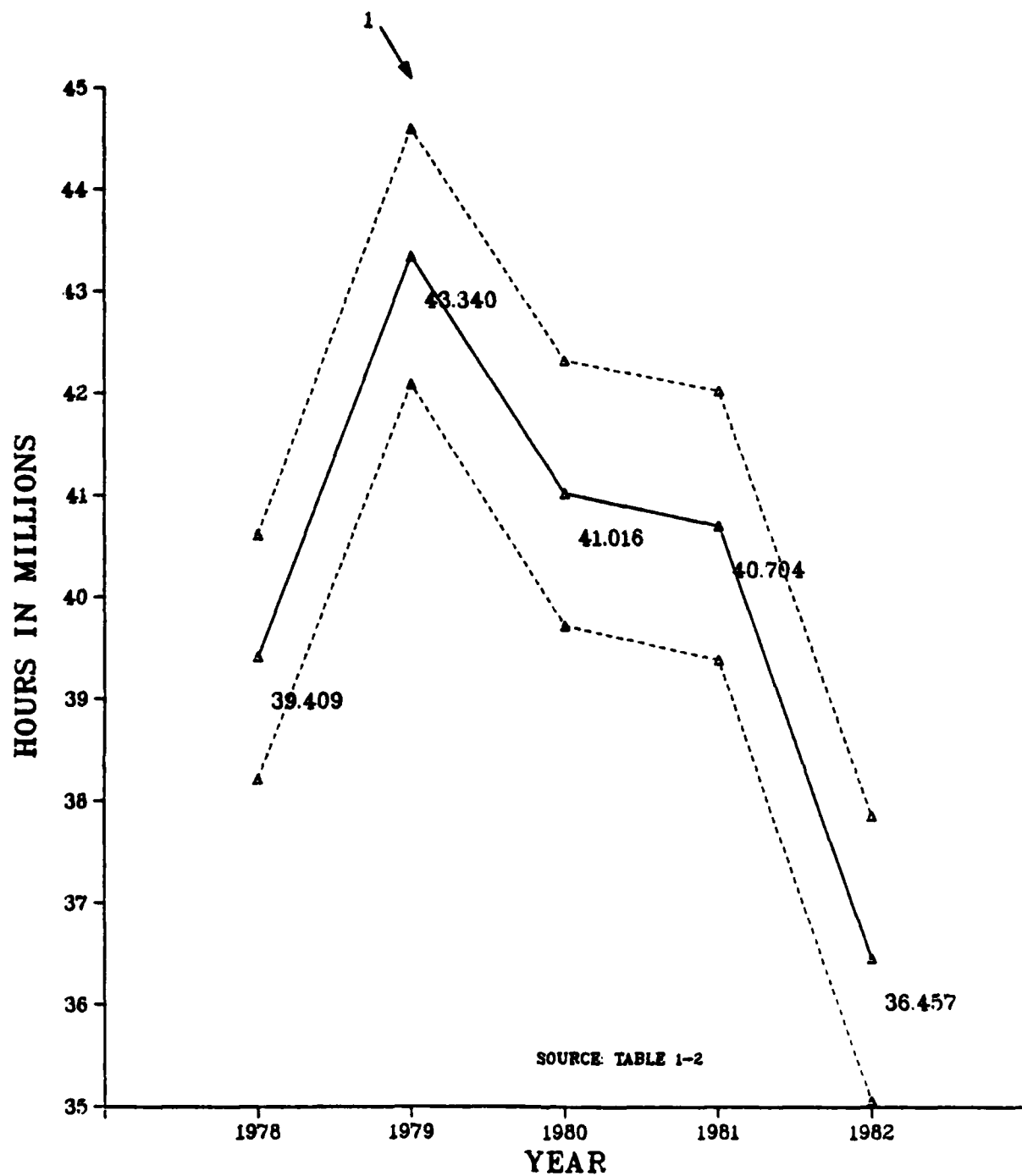
Total flight time and the active aircraft count for the general aviation fleet grew at annual rates of 0.37 percent and 2.62 percent, respectively, from 1977 through 1982. However, significant deviations from these mean rates occurred among the individual aircraft types. Tables 1-2 and 1-3, which contain the five-year trends in growth for total hours flown and active aircraft, illustrate this point. The last column in each table reveals the compound annual growth rates by aircraft type from 1977 to 1982. Table 1-2 illustrates that the "other turboprop" aircraft category grew at the highest rate (17.28 percent) in terms of total hours flown. This group was followed by the "other turbojet" category which had a growth rate of 16.70 percent. Twin engine turboprops with 1-12 seats were third, at 12.06 percent. In contrast, the following aircraft types experienced a decline in total hours flown over the five year period: fixed wing single engine piston, fixed wing twin engine piston with 1-6 seats, fixed wing other piston, fixed wing twin engine turboprops with 13 or more seats, and rotorcraft piston. Table 1-3 shows that the other turboprops also had the highest compound annual growth rate in terms of active general aviation aircraft at 18.41 percent. The other turbojet group followed with a rate of 16.66 percent, while twin engine turboprops with 1-12 seats were third, with a growth rate of 14.23 percent. In contrast, the number of active aircraft in the fixed wing other piston and rotorcraft piston categories declined at rates of 5.11 percent and 1.87 percent, respectively, from 1977 to 1982.





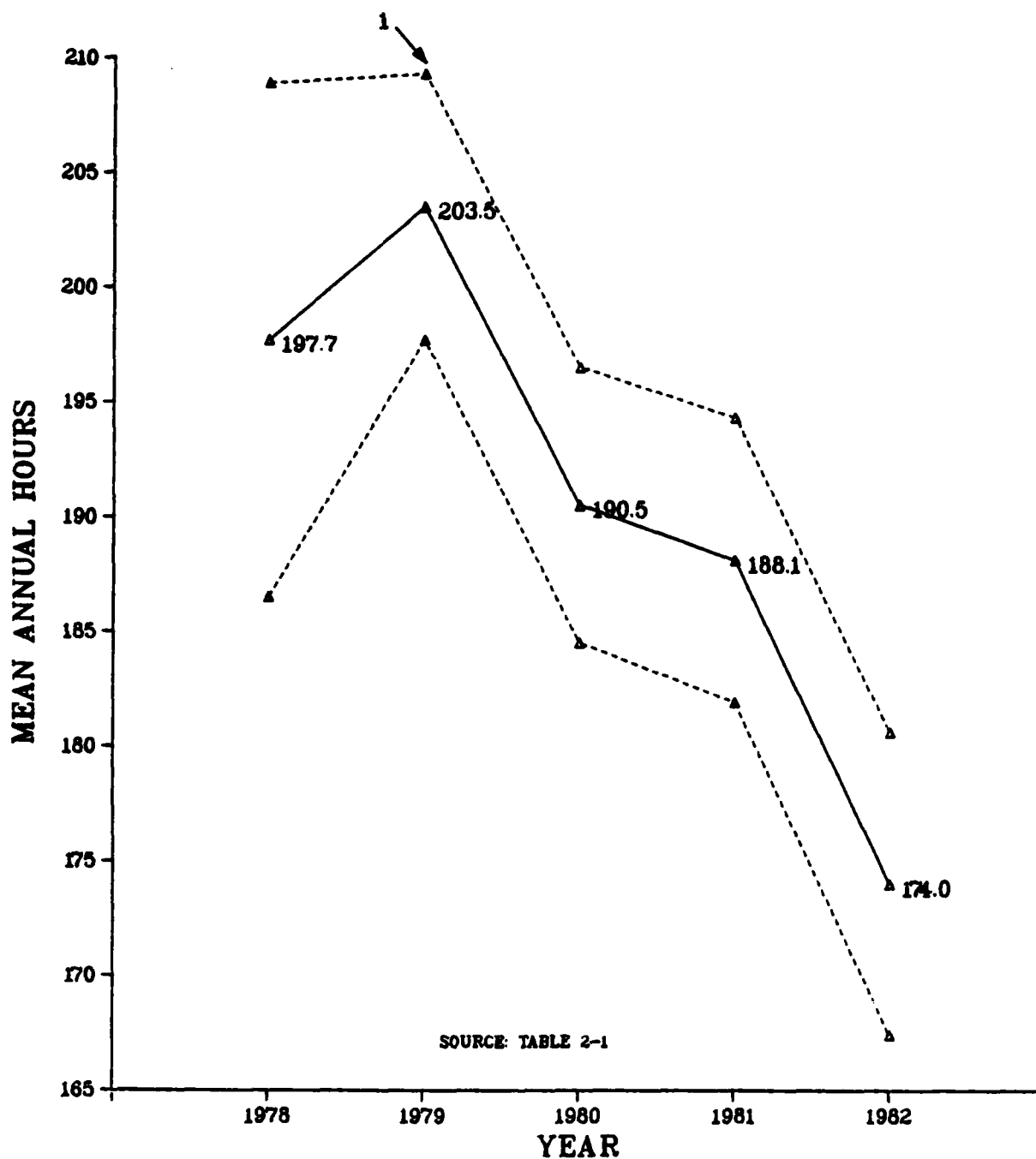
1. THE DASHED LINES REPRESENT A 95% CONFIDENCE INTERVAL FOR THE  
1978 - 1982 TRUE VALUES. SEE APPENDIX B.

FIGURE 1-2. GENERAL AVIATION ACTIVE FLEET SIZE 1978-1982



1. THE DASHED LINES REPRESENT A 95% CONFIDENCE INTERVAL FOR THE 1978 - 1982 TRUE VALUES. SEE APPENDIX B.

FIGURE 1-3. GENERAL AVIATION TOTAL FLYING TIME 1978-1982



1. THE DASHED LINES REPRESENT A 95% CONFIDENCE INTERVAL FOR THE  
1978 - 1982 TRUE VALUES. SEE APPENDIX B.

FIGURE 1-4. GENERAL AVIATION MEAN ANNUAL FLYING TIME FOR ACTIVE AIRCRAFT  
1978-1982

TABLE 1-2 GROWTH OF GENERAL AVIATION TOTAL HOURS FLOWN BY AIRCRAFT TYPE, 1977 - 1982  
(Thousands of Hours)

AIRCRAFT TYPE	1977 (Standard Error)	1978 (Standard Error)	1979 (Standard Error)	1980 (Standard Error)	1981 (Standard Error)	1982 (Standard Error)	Compound Annual Growth Rate in %
<b>FIXED WING</b>							
1-engine piston 1-3 seats	8,973 (629)	10,111 (570)	11,180 (384)	10,044 (399)	10,185 (399)	8,325 (374)	-1.49
1-engine piston 4+ seats	15,944 (824)	17,746 (992)	19,109 (420)	18,295 (428)	17,506 (432)	15,934 (472)	-.01
2-engine piston 1-6 seats	3,630 (202)	3,644 (241)	4,006 (148)	3,730 (172)	3,606 (144)	3,040 (177)	-3.49
2-engine piston 7+ seats	2,322 (102)	2,439 (189)	2,855 (137)	2,547 (143)	2,762 (153)	2,617 (197)	2.42
Other piston	96 (5)	104 (7)	152 (15)	130 (18)	24 (63)	33 (10)	-19.23
2-engine turboprop 1-12 seats	892 (37)	960 (49)	1,254 (57)	1,489 (55)	1,549 (68)	1,576 (116)	12.06
2-engine turboprop 13+ seats	625 (60)	622 (63)	572 (45)	964 (55)	542 (45)	520 (84)	-3.61
Other turboprop	32 (5)	24 (3)	45 (2)	56 (10)	62 (11)	71 (20)	17.28
2-engine turbojet	1,043 (49)	1,019 (44)	1,125 (39)	1,163 (52)	1,238 (48)	1,347 (98)	5.25
Other turbojet	122 (11)	176 (30)	134 (9)	169 (27)	149 (16)	264 (46)	16.70
<b>ROTORCRAFT</b>							
Piston	609 (90)	806 (79)	892 (97)	736 (75)	930 (108)	579 (58)	-1.01
Turbine	1,259 (93)	1,421 (135)	1,664 (108)	1,603 (115)	1,754 (150)	1,771 (145)	7.06
<b>OTHER</b>							
	245 (16)	338 (20)	353 (29)	359 (21)	391 (34)	379 (40)	9.12
<b>TOTAL AIRCRAFT</b>	<b>35,792 (1,073)</b>	<b>39,409 (1,199)</b>	<b>43,340 (627)</b>	<b>41,016 (650)</b>	<b>40,704 (659)</b>	<b>36,456 (701)</b>	<b>.37</b>

NOTE: Column summations may differ from printed totals due to estimation procedures.

TABLE 1-3 GROWTH OF ACTIVE GENERAL AVIATION FLEET BY AIRCRAFT TYPE, 1977 - 1982  
(Number of Aircraft)

AIRCRAFT TYPE	1977 (Standard Error)	1978 (Standard Error)	1979 (Standard Error)	1980 (Standard Error)	1981 (Standard Error)	1982 (Standard Error)	Compound Annual Growth Rate in %
<b>FIXED WING</b>							
1-engine piston 1-3 seats	57,340 (851)	59,185 (860)	62,362 (594)	60,505 (688)	59,914 (748)	57,670 (910)	.11
1-engine piston 4+ seats	91,960 (529)	101,466 (857)	106,028 (450)	107,930 (538)	107,983 (656)	106,503 (687)	2.98
2-engine piston 1-6 seats	15,074 (141)	15,621 (259)	16,891 (157)	16,224 (246)	16,749 (246)	16,381 (303)	1.68
2-engine piston 7+ seats	6,226 (86)	7,328 (202)	7,958 (90)	8,141 (153)	8,607 (181)	8,501 (168)	6.43
Other piston	182 (11)	221 (10)	229 (11)	212 (17)	114 (29)	140 (24)	-5.11
2-engine turboprop 1-12 seats	2,276 (15)	2,507 (68)	2,944 (13)	3,339 (41)	3,968 (46)	4,427 (45)	14.23
2-engine turboprop 13+ seats	549 (13)	566 (10)	538 (15)	627 (18)	557 (17)	610 (28)	2.13
Other turboprop	64 (4)	56 (3)	96 (3)	123 (10)	134 (5)	149 (28)	18.41
2-engine turbojet	1,959 (19)	2,115 (27)	2,309 (29)	2,551 (37)	2,808 (68)	3,309 (84)	11.05
Other turbojet	318 (10)	364 (34)	343 (6)	441 (13)	362 (23)	687 (73)	16.66
<b>ROTORCRAFT</b>							
Piston	2,658 (176)	2,822 (155)	3,123 (127)	2,794 (133)	3,250 (173)	2,419 (178)	-1.87
Turbine	2,067 (27)	2,492 (30)	2,740 (50)	3,207 (49)	3,724 (73)	3,749 (140)	12.65
<b>OTHER</b>							
	3,616 (69)	4,028 (75)	4,770 (114)	4,945 (142)	5,049 (179)	5,233 (211)	7.67
<b>TOTAL AIRCRAFT</b>	<b>184,294 (1,034)</b>	<b>198,778 (1,269)</b>	<b>210,339 (789)</b>	<b>211,045 (945)</b>	<b>213,226 (1,078)</b>	<b>209,779 (1,238)</b>	<b>2.62</b>

NOTE: Column summations may differ from printed totals due to estimation procedures.

There was a great deal of variation in activity among the general aviation aircraft types in terms of three measures resulting from the survey: total hours flown, number of active aircraft, and mean hours flown. Figure 1.5 highlights the variation as well as the relationship of these three measures to each other. Distance along the vertical axis indicates mean flight hours per aircraft, distance along the horizontal axis indicates the relative portion of the active fleet belonging to each aircraft type, and the area within each box is proportional to the total flying time for the aircraft type. Thus, it is evident that in terms of sheer numbers, single engine piston aircraft dominated the active fleet and contributed the largest portion of total flying time, yet had one of the lowest mean flight times per aircraft. In contrast, the turboprops, turbojet aircraft, and rotorcraft had low representation in the active fleet but contributed a relatively high proportion of flight time resulting in the greatest mean flight hours of any of the major aircraft types.

The general aviation aircraft fleet consumed an estimated 1,335 million gallons of fuel during 1982, 448 million gallons of aviation gasoline and 887 million gallons of jet fuel. From Figure 1.6, it is evident that turbojet and turboprop engines consume fuel at much higher rates than piston engines. In fact, turbojets other than those with 2 engines consume about 705 gallons of jet fuel an hour on the average. The high rates account for turbojets' burning 44 percent of all fuel consumed in 1982, as shown in Figure 1.7. Fixed wing piston aircraft account for 33 percent of the fuel consumed in 1982 due to their high representation in the general aviation fleet. Table 2-21 shows more detailed fuel consumption estimates and their standard errors.

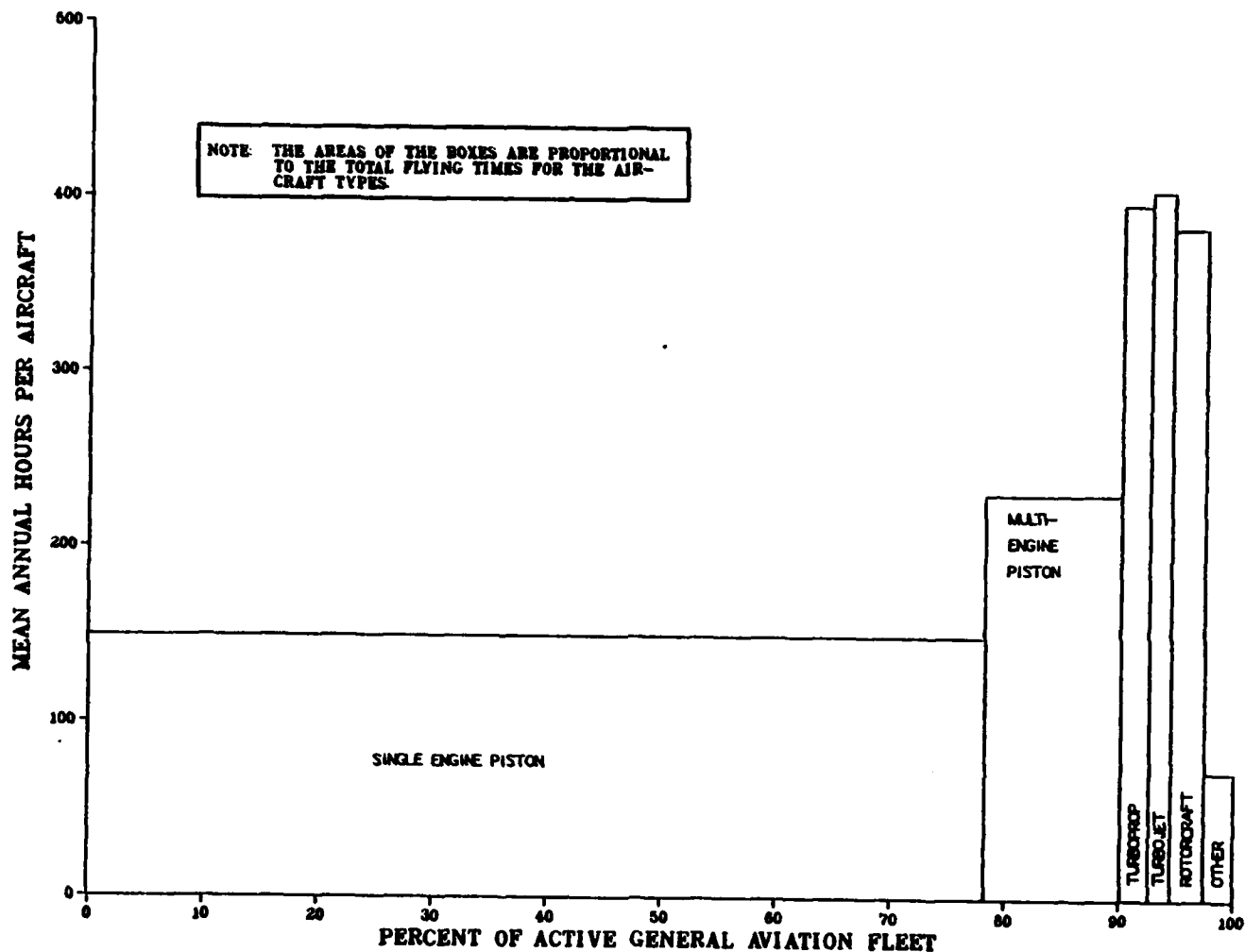
Activity of Ultralight Aircraft - For the 1982 survey, an item asking the respondent to identify whether the aircraft is an ultralight was included on the questionnaire. Approximately 0.5 percent (1,306 aircraft) of the aircraft registered in 1982 were ultralights, 935 of which were active. Ultralights flew a mean of 139.6 hours per aircraft, for a total of 125,800 hours.

#### 1.4.3 Results by Primary Use

Like aircraft types, primary uses were differentiated by their activity characteristics, as shown in Figure 1.8. Distance along the vertical axis indicates mean hours per aircraft. Distance along the horizontal axis indicates the relative portion of the active fleet engaged in each primary use, and the area within each box is proportional to the total flying time for each primary use. Aircraft used as commuter air carriers showed the highest individual usage with a mean of 1,014.8 hours flown per aircraft. Aircraft used for instructional purposes and as air taxis also had fairly high levels of individual usage with mean hours flown per aircraft of 334.8 and 392.5, respectively. General aviation aircraft were used most commonly for personal and business purposes, representing 45 and 23 percent of the active fleet. While total hours flown for the general aviation fleet declined by over 10 percent from 1981 to 1982, flying time for aircraft in the commuter carrier, air taxi, and other work categories increased by 10.9 percent, 13.5 percent, and 26.8 percent, respectively. These were the only categories of aircraft for which flying time increased from 1981 to 1982.

#### 1.4.4 Results by Flying Conditions

Beginning with the 1982 survey, an item relating to the conditions in which aircraft were flown was included in the questionnaire (see item 8 on the questionnaire in



SOURCE: TABLE 2-1

FIGURE 1-5. 1982 GENERAL AVIATION ACTIVITY MEASURES BY AIRCRAFT TYPE

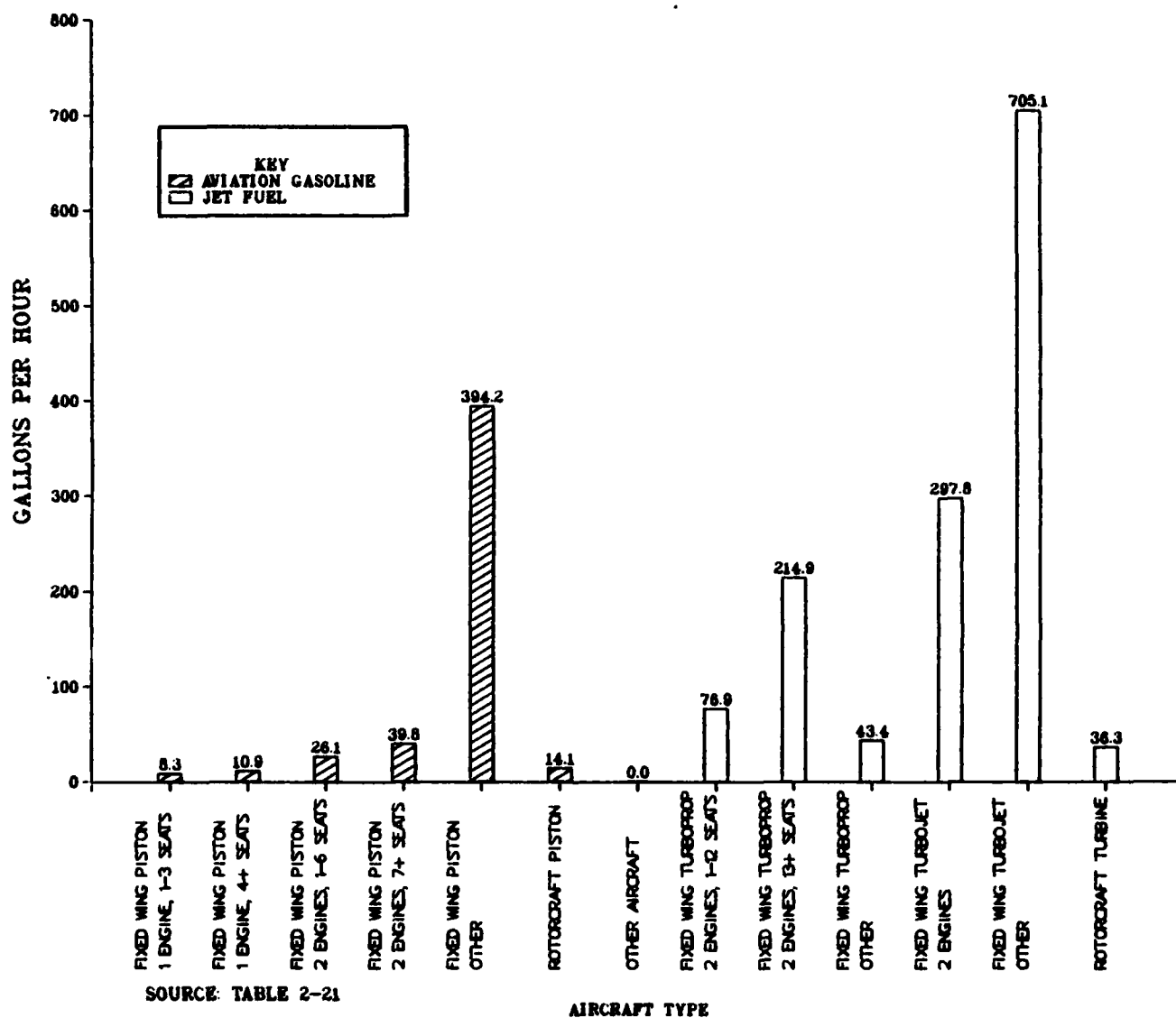
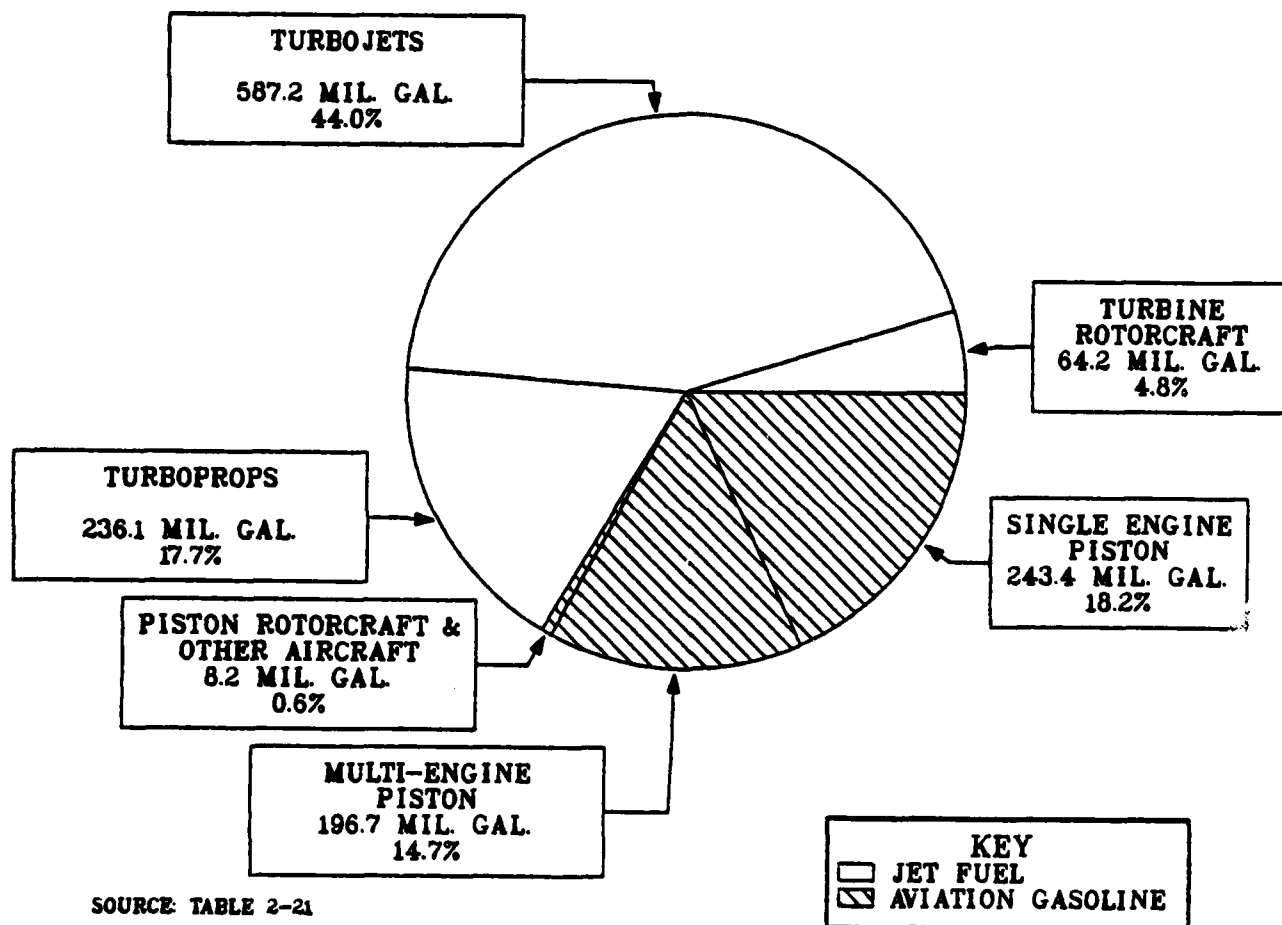


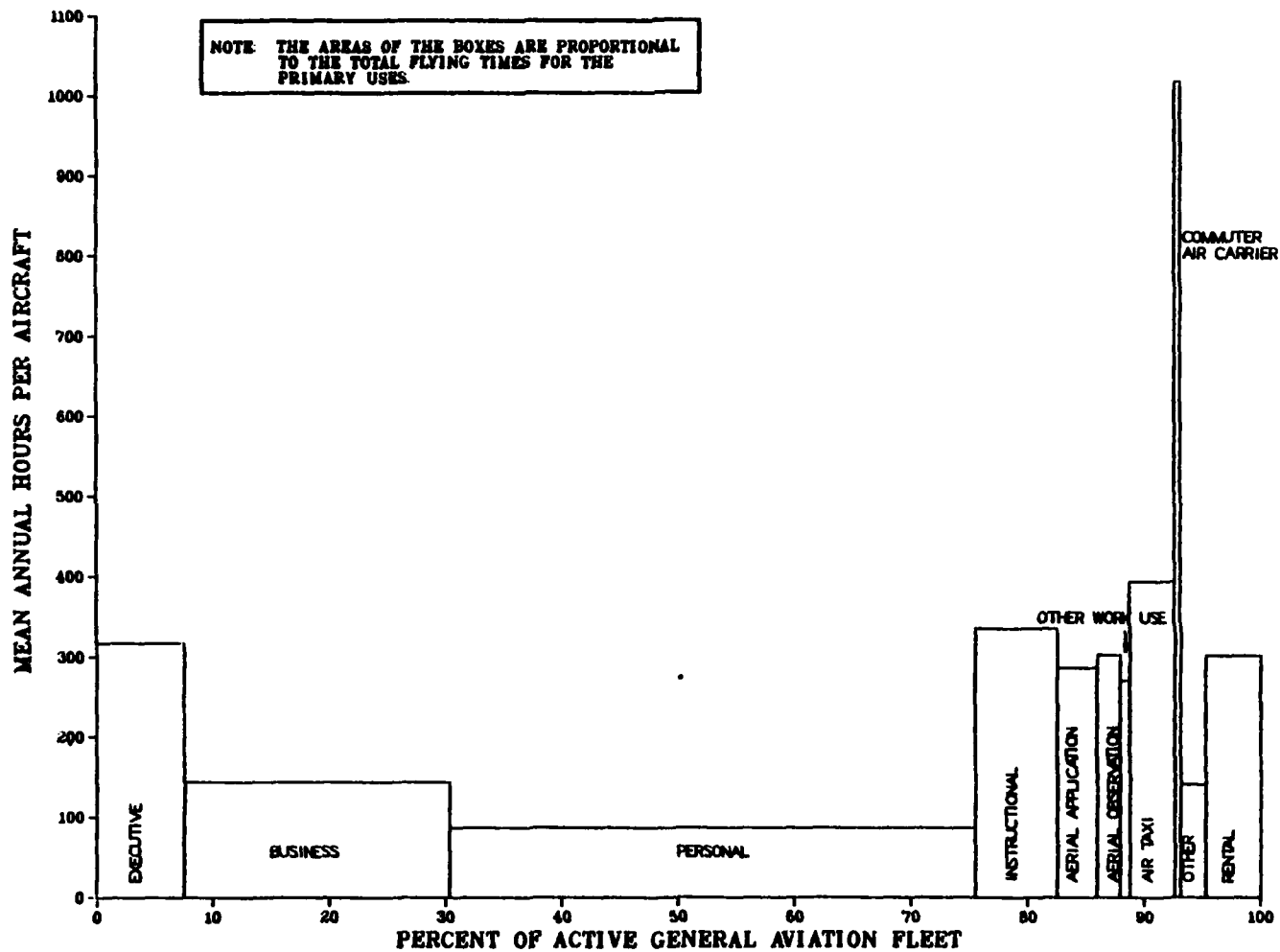
FIGURE 1-6. 1982 MEAN FUEL CONSUMPTION RATES BY AIRCRAFT TYPE





SOURCE: TABLE 2-21

FIGURE 1-7. 1982 ESTIMATED FUEL CONSUMPTION BY AIRCRAFT TYPE



SOURCE: TABLES 2-4, 2-8

FIGURE 1-8. 1982 GENERAL AVIATION ACTIVITY MEASURES BY PRIMARY USE

Appendix A). This question asks the aircraft owner to identify the percentage of total hours flown by the aircraft in Instrument Meteorological (IM) and Visual Meteorological (VM) conditions during day and night hours. The pie chart in Figure 1.9 illustrates the percentage of total hours flown under each of these conditions.

The chart indicates that over 75 percent of the total hours logged by the 1982 general aviation fleet were flown in VM conditions during the day. Aircraft flown in VM night, IM day, and IM night conditions accounted for 11 percent, 10 percent, and 4 percent of the total hours flown, respectively.

Single engine piston aircraft with 4+ seats flew more hours (1.9 million) in IM conditions than any other aircraft type. Twin engine piston aircraft with 7+ seats were second, with 879,243 hours. Single engine piston aircraft with 4+ seats also accounted for more hours (13.7 million) flown in VM conditions than any other aircraft type, while twin engine piston aircraft with 1-6 seats were second, with 2.4 million hours. Table 2-12 contains more data on general aviation annual hours flown by weather and light conditions by aircraft type. In terms of region of based aircraft, aircraft based in the Southern region accounted for more hours (1.15 million) flown in IM conditions than any other region. Aircraft based in the Great Lakes were second, as they accounted for about 1 million of the hours flown in IM conditions. Aircraft based in the Southern and Southwestern regions also accounted for the highest level of hours flown in VM conditions. Table 2-13 gives a detailed breakdown of general aviation annual hours flown by weather and light conditions by region of based aircraft. Table 2-14 lists general aviation annual hours flown by weather and light conditions by SDR manufacturer/model group.

#### 1.4.5 Results by FAA Region

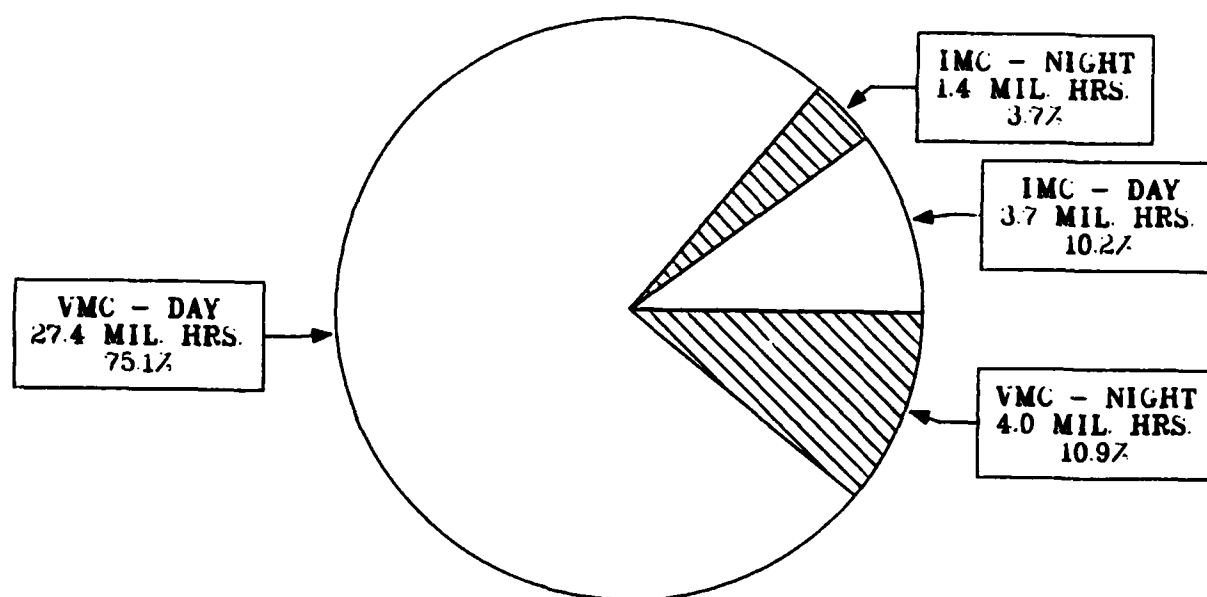
Mean aircraft usage did not differ significantly from region to region with the exception of the Southern and European (Foreign) Regions, according to Figure 1.10. In the figure, distance along the vertical axis indicates mean annual hours per aircraft, distance along the horizontal axis indicates the relative portion of the active fleet based in each region, and the area within each box is proportional to the total flying time occurring in each region. It can be seen that the Great Lakes Region accounted for more active aircraft than any other region. The Southern Region accounted for more total flight time than any of the other regions, although the Great Lakes, Western-Pacific, and Southwestern Regions are close behind. The smallest region in continental United States was New England, with only 3 percent of the active aircraft and about 3.7 percent of the fleet's total flight time.

Tables 2-3 and 2-8 contain more estimates by region; Tables 2-2 and 2-7 show similar estimates by state of based aircraft.

#### 1.4.6 Results by Avionics Capability

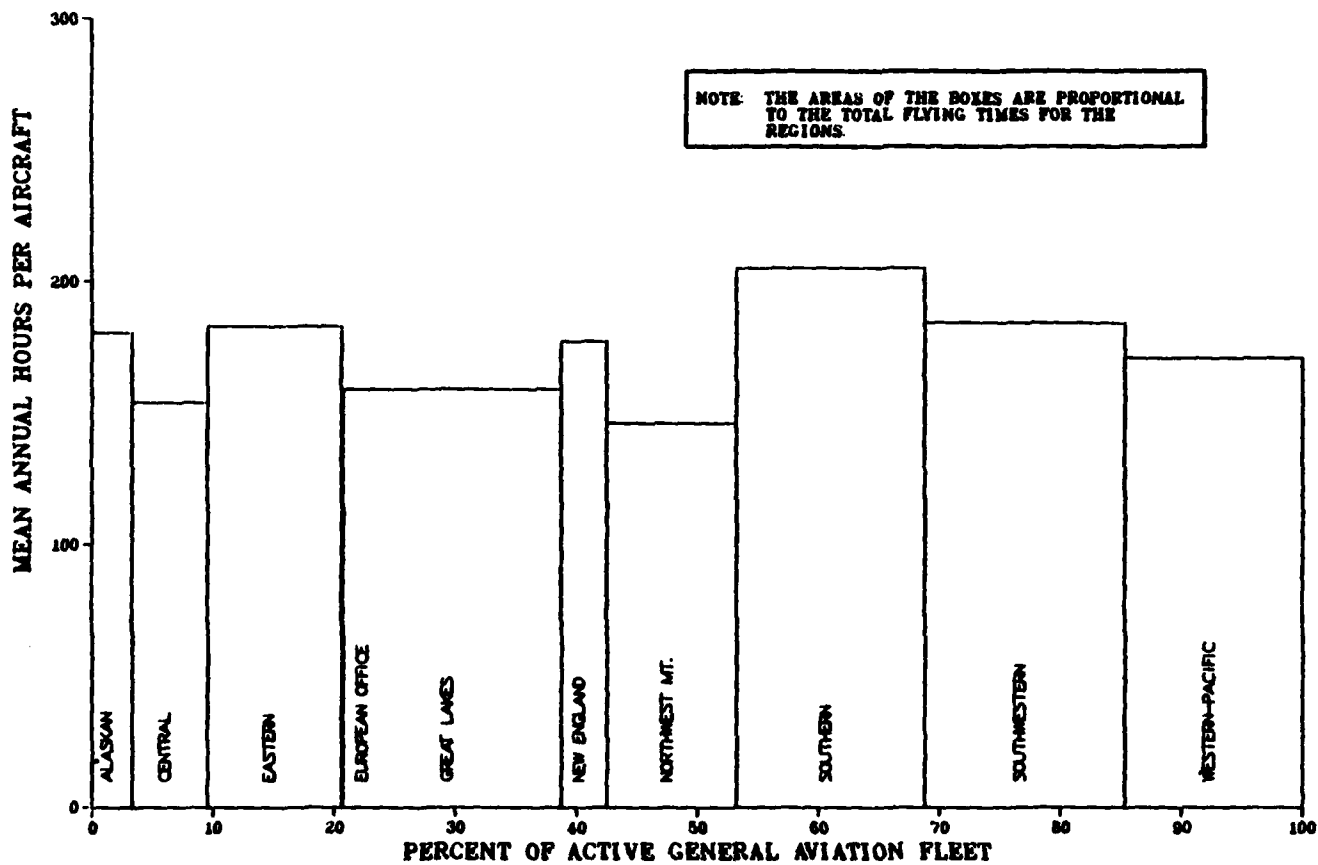
##### 1.4.6.1 Individual Avionics Components

The extent to which general aviation aircraft are furnished with on-board avionics equipment was a principal finding of the survey. A summary appears in Figure 1.11. Over 84 percent of the aircraft have two-way VHF communications,



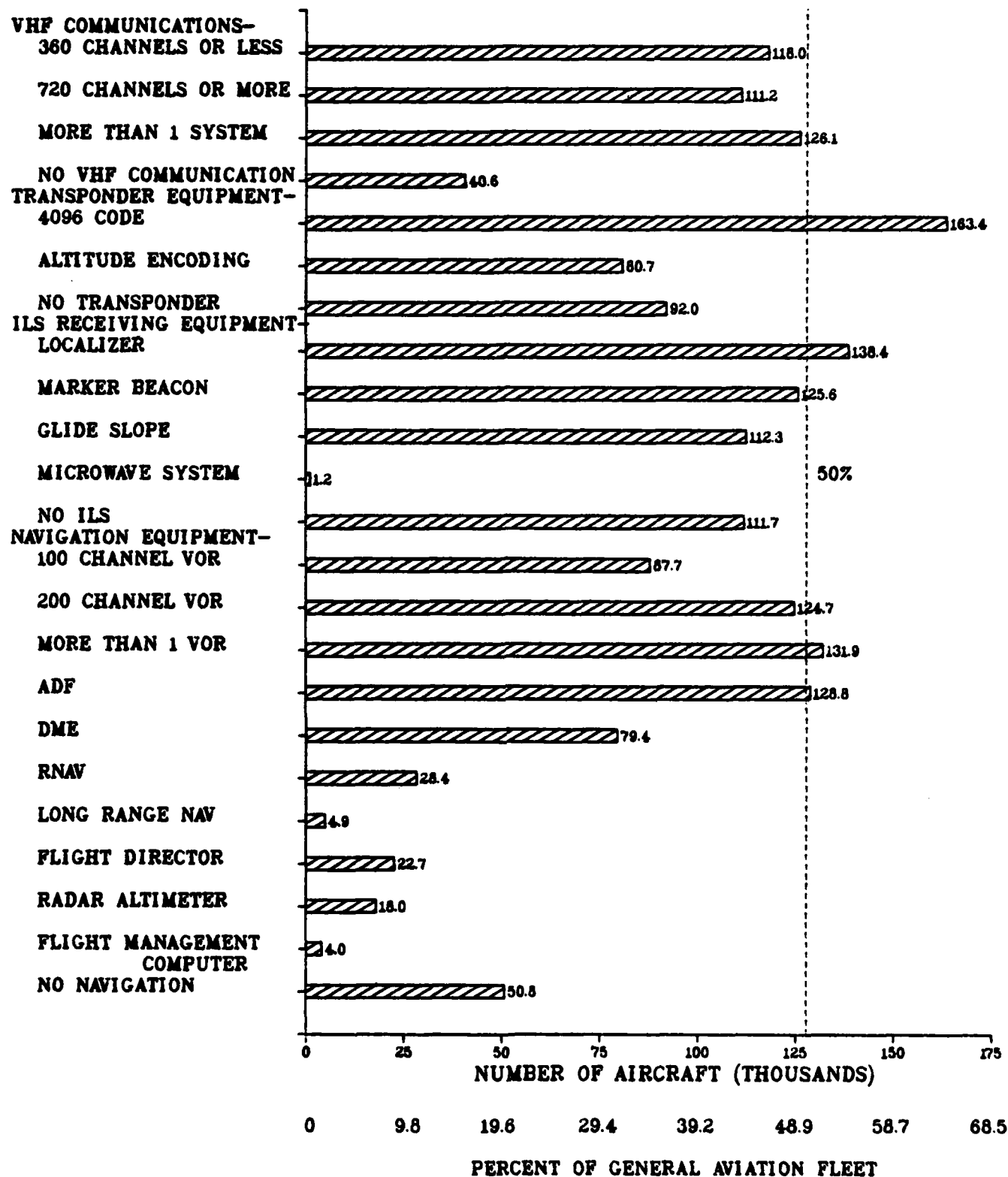
SOURCE: TABLE 2-12

FIGURE 1-9. 1982 GENERAL AVIATION ANNUAL HOURS FLOWN BY WEATHER AND LIGHT CONDITIONS



SOURCE: TABLE 2-3

FIGURE 1-10. 1982 GENERAL AVIATION ACTIVITY MEASURES BY FAA REGION



SOURCE: TABLE 2-16

FIGURE 1-11. AVIONICS EQUIPMENT IN THE 1982 GENERAL AVIATION AIRCRAFT FLEET

64 percent are equipped with 4096-code transponders, 56 percent have at least one component of an instrument landing system, and over 80 percent have some form of navigation equipment. It is evident from comparing the 1982 and 1977 avionics estimates that the general aviation fleet is becoming more sophisticated in terms of its avionics equipment. Within two-way communications, for example, there was a significant shift from 360 channel to 720 channel equipment. In terms of transponder equipment, there was a substantial increase in the percentage of the general aviation aircraft containing 4096 code transponders and altitude encoding equipment, while the percentage of aircraft containing no transponder equipment declined considerably over the five year period. In terms of VOR receivers there was a shift from 100 channel to 200 channel equipment. The proportion of the general aviation fleet with transponders increased from 53.3 percent in 1978 to 64 percent in 1982, and the proportion with at least one part of an ILS increased from 51.0 percent to 56.2 percent. The proportion of aircraft having two or more communications systems increased by more than 7.2 percent from 1978 to 1982. The proportion with two or more VOR receivers increased by 6.1 percent over the same five year period. More detailed breakdowns of avionics by aircraft type, state, region, and primary use are provided in Tables 2-15 through 2-18.

Figure 1.12 shows the portion of active aircraft of each type which engaged in IFR (Instrument Flight Rules) flight during 1982 and further, the portions that flew IFR with and without transponder equipment. It can be seen that almost all active twin engine piston aircraft, turboprops, and turbojets flew IFR at some time during 1982 and were equipped with transponders. Although a much lower proportion of the active single engine piston aircraft and rotorcraft in the fleet flew IFR during the year, almost all that did were equipped with transponders. In fact, almost 100 percent of IFR flying was performed by aircraft equipped with transponders.

#### 1.4.6.2 Avionics Capability Groups

Estimates of the number of aircraft containing individual pieces of avionics equipment are somewhat limited because they do not provide the means to determine an aircraft's overall ability to use the National Airspace System (NAS). Often several pieces of equipment are required to obtain a certain capability in the NAS; it thus becomes necessary to study groups of avionics, rather than individual pieces. Therefore, avionics capability groups were developed to provide a framework for the GA fleet relating airborne avionics equipment to aircraft capability to perform in the NAS, and within this framework to analyze the activity and other characteristics of the GA fleet.

The methodology and assumptions for developing avionics capability groups are detailed in General Aviation Avionics Statistics.<sup>1</sup> This report also contains a glossary which explains numerous terms relating to avionics equipment and the National Airspace System.

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<sup>1</sup>General Aviation Avionics Statistics (1979 Data), U.S. Department of Transportation, Federal Aviation Administration, (Washington, DC, 1981), pp.5-10.

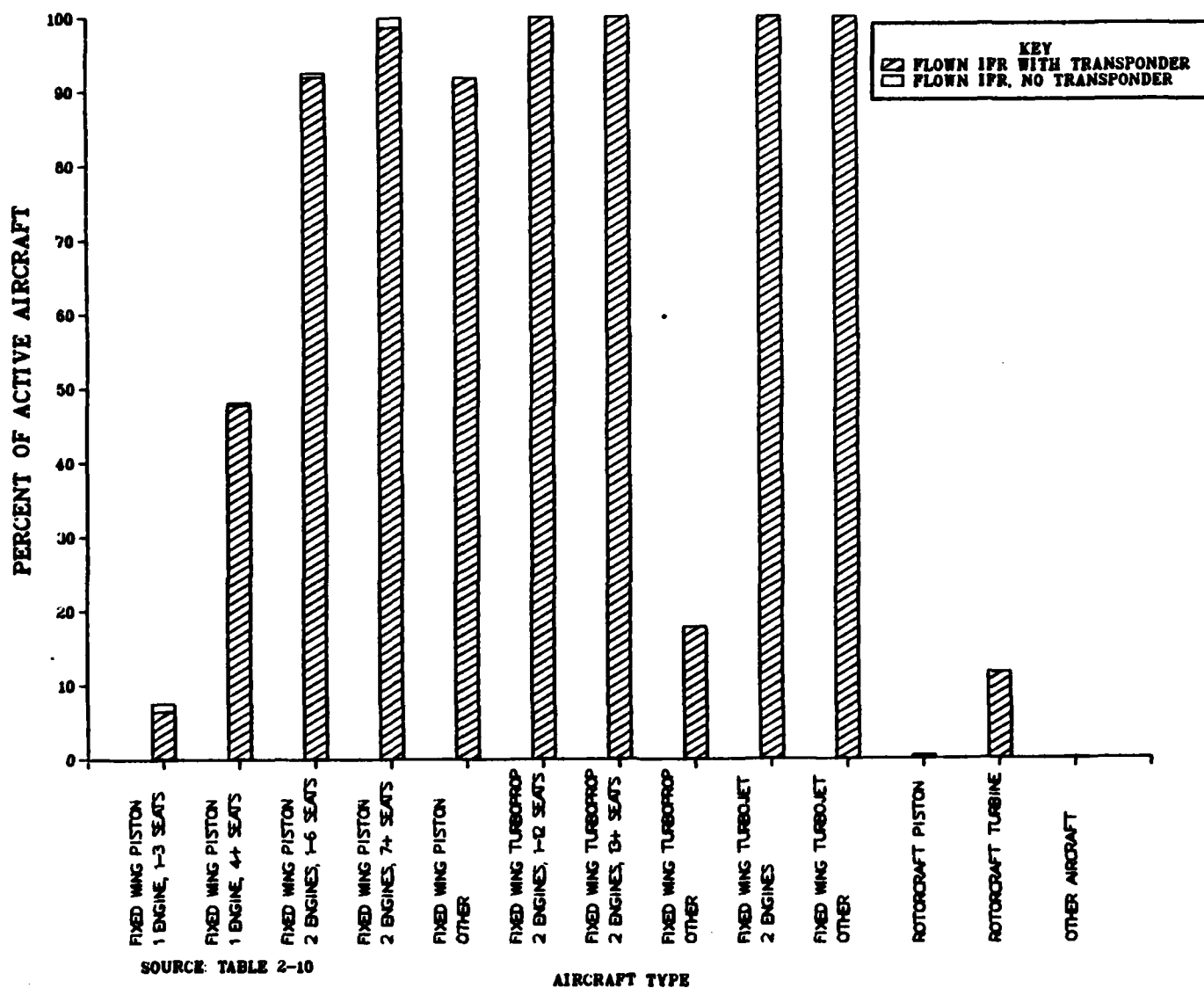


FIGURE 1-12. 1982 GENERAL AVIATION ACTIVE AIRCRAFT FLOWN IFR AND TRANSPONDER EQUIPPED



Two classifications of capability groups (CG's) were developed. The first type consists of avionics equipment meeting FAA requirements for use of various aspects of the NAS. FAA regulations deal with three basic capabilities: (1) to fly in different segments of the airspace, (2) to fly under visual flight rules (VFR) and instrument flight rules (IFR) type of flight, and (3) to land at different classes of airports. In the formation of CG's of avionics equipment which relate to these three capabilities, the groups take on a hierarchical nature; that is, there is an order to the groups. Thus, the first type of CG became known as hierarchical. In general, the avionics equipment and the associated capabilities for one capability group are a subset of the avionics equipment and the associated capabilities for the next higher group.

The second type of capability group, non-hierarchical, consists of avionics which give an aircraft additional capability but which are not required equipment according to FAA regulations. The formation of the second type of CG involved grouping component pieces of avionics equipment which together would form a complete avionics system for enabling an aircraft to make full use of a landing, communications, or navigation system in the NAS.

Hierarchical CG's are described in Table 1-4 in terms of avionics equipment and associated capabilities. Non-hierarchical CG's are described in Table 1-5.

Table 2-22 presents the estimates of the number of GA aircraft found in the hierarchical and non-hierarchical CG's. Examination of Table 2-22 reveals the following on the GA fleet:

- a. About 24.5 percent of GA aircraft have avionics equipment enabling them to fly above 18,000 feet in positive controlled airspace. Approximately 68.4 percent of the GA fleet cannot fly above 12,500 feet due to avionics limitations alone.
- b. Over 78 percent of GA aircraft are equipped to fly IFR.
- c. Almost sixteen percent of the GA fleet are limited to landing at uncontrolled airports. Approximately 22 percent can land at either uncontrolled airports or Group III TCA's. Approximately 31 percent can land at any type of airport except a Group I TCA. About 31 percent can land at Group I TCA's. This proportion has increased constantly over the past 5 years.
- d. In general, Table 2-22 indicates that those aircraft in the least sophisticated non-hierarchical CG's also comprise the bulk of the least sophisticated hierarchical CG's. Of the aircraft possessing none of the non-hierarchical CG equipment (i.e. NO GROUP), 74.5 percent fall into hierarchical CG's 1, 2, and 3. Similarly, those aircraft in the most sophisticated non-hierarchical CG's are also in the most sophisticated hierarchical CG's. For example, 94 percent of the aircraft possessing a complete ILS and a radar altimeter fall into hierarchical CG 8.

**TABLE 1-4. HIERARCHICAL CAPABILITY GROUPS**

AVIONICS	CAPABILITES
<u>Group 1</u> No regulatory avionics	1. Up to and including 12,500 feet mean sea level (MSL) Gliders...Up to and including 18,000 feet MSL ADF...Colored airways below 12,500 feet MSL VOR or RNAV ...VOR airways below 12,500 feet MSL RNAV...Low altitude RNAV airways below 12,500 feet MSL  2. VFR flight, day and night  3. Uncontrolled airports
<u>Group 2</u> Two-way Communications	1. Up to and including 12,500 feet MSL Gliders...Up to and including 18,000 feet MSL  2. VFR flight, day and night  3. Non-TCA controlled airports Group III TCA's Helicopters ... with 4096 code transponders...Group III TCA's All helicopters...Group I and II TCA's below 1,000 feet above ground level (AGL)  NOTE: Air taxis with navigation system and transponder: Group II TCA's  Air taxis with navigation system, transponder and altitude reporting: Group I TCA's and non-positive controlled airspace  Air taxis with navigation system, DME, transponder and altitude reporting: Group I TCA's and positive controlled airspace

TABLE 1-4. HIERARCHICAL CAPABILITY GROUPS (CONTINUED)

AVIONICS	CAPABILITIES
<u>Group 3</u> Two-way communications Two systems—air taxis VOR or Automatic Direction Finder (ADF) or RNAV	<ol style="list-style-type: none"> <li>Up to and including 12,500 feet MSL  Gliders...Up to and including 18,000 feet MSL  ADF...Colored airways below 12,500 feet MSL  VOR or RNAV...VOR airways below 12,500 feet MSL  RNAV...Low altitude RNAV airways below 12,500 feet MSL</li> <li>IFR flight</li> <li>Non-TCA controlled airways  Group III TCA's  Helicopters with 4096 code transponders...Group II TCA's  All helicopters...Group I and II TCA's below 1,000 feet AGL</li> </ol>
<u>Group 4</u> Two-way communications Two systems—air taxis 4096 code transponder VOR or RNAV	<ol style="list-style-type: none"> <li>Up to and including 12,500 feet MSL  Gliders...Up to and including 18,000 feet MSL  VOR airways below 12,500 feet MSL  RNAV...Low altitude RNAV airways below 12,500 feet MSL</li> <li>IFR flight</li> <li>Non-TCA controlled airports  Group II TCA's  Helicopters...Group I TCA's below 1,000 feet AGL</li> </ol>
<u>Group 5</u> 4096 code transponder Altitude encoding equipment	<ol style="list-style-type: none"> <li>Non-positive controlled airspace</li> <li>VFR flight, day and night</li> <li>Uncontrolled airports  Group III TCA's</li> </ol>

TABLE 1-4. HIERARCHICAL CAPABILITY GROUPS (CONTINUED)

AVIONICS	CAPABILITIES
<u>Group 6</u> Two-way communications 4096 code transponder Altitude encoding equipment	1. Non-positive controlled airspace  2. VFR flight, day and night  3. Non-TCA controlled airports Group III TCA's Helicopters...Group I TCA's
<u>Group 7</u> Two-way communications Two systems—air taxis 4096 code transponder Altitude encoding equipment VOR	1. Non-positive controlled airspace VOR airways  2. IFR flight  3. Group I TCA's
<u>Group 8</u> Two-way communications Two systems—air taxis 4096 code transponder Altitude encoding equipment VOR } DME } or RNAV	1. Positive controlled airspace Jet routes RNAV...RNAV routes  2. IFR flight  3. Group I TCA's

TABLE 1-5. NON-HIERARCHICAL CAPABILITY GROUPS

AVIONICS	CAPABILITIES
<u>Group 1</u> Localizer	Partial use of airport ILS
<u>Group 2</u> Localizer Marker Beacon	Partial use of airport ILS
<u>Group 3</u> Localizer Marker Beacon Glide Slope	Full use of airport ILS
<u>Group 4</u> ILS Radar Altimeter	Landing approach in Category III <sup>1</sup> weather conditions at airports with Category III equipment
<u>Group 5</u> Long Range RNAV	Area navigation over long distances and large bodies of water
<u>Group 6</u> Radar Altimeter	Determination of altitude above level of terrain
<u>Group 7</u> Microwave Landing System (MLS)	More accurate and flexible landing approaches, especially at air- ports with mountains and large buildings nearby
<u>Group 8</u> ILS MLS	Backup landing systems
<u>Group 9</u> Long Range RNAV MLS	Sophisticated navigational and landing capabilities

<sup>1</sup>See Appendix D, "Weather Category Definitions," General Aviation Avionics Statistics (1979 Data), (Washington, DC, 1981).

Tables 2-23 through 2-32 show distributions of hierarchical and non-hierarchical capability groups versus aircraft characteristics. These characteristics include: primary use of the aircraft, hours flown during 1982, age of the aircraft, and computed aircraft type. The 13 computed aircraft types listed in Table 1-6 combine the four aircraft characteristics of engine type, number of engines, aircraft type (simple), and number of seats into meaningful combinations for the GA fleet.

Generally, those aircraft in low order CG's have less sophisticated characteristics than those in high order capability groups as follows:

- a. As in prior years, as the hierarchical CG's increase in sophistication, the predominant uses also change from personal, to business and personal, to executive and business (Table 2-23).
- b. As non-hierarchical CG's increase in sophistication, the predominant primary uses of aircraft change from personal, to business, to business and executive. For example, executive aircraft alone compose 34 percent of the aircraft reporting both a microwave landing system and a complete ILS and about 46 percent of the aircraft reporting a complete ILS and radar altimeter, yet executive aircraft compose only 6.4 percent of the fleet (Table 2-28).
- c. In the case of both hierarchical and non-hierarchical capability groups, aircraft containing more avionics equipment and capabilities are flown more hours on the average than those with smaller investments in avionics equipment (Tables 2-24 and 2-29).
- d. Aircraft in the more sophisticated groups contain newer aircraft on the average than less sophisticated CG's (Tables 2-25 and 2-30).
- e. Computed aircraft type increases in sophistication as the level of avionics increases. (Tables 2-26 and 2-31).

#### 1.4.7 Other Results

Additional results to those discussed above are found in the tables in Section 2. Estimates of total hours, mean hours, lifetime airframe hours, and number of active aircraft for over 200 SDR manufacturer/model groups of general aviation aircraft are found in Tables 2-5, 2-11, and 2-19. Appendix D contains definitions of these groups. The report also includes a table on mean hours and number of active engines for 81 different manufacturer/model groups of engines. Appendix E contains definitions of these groups.

TABLE 1-6. COMPUTED AIRCRAFT TYPE

TYPE	DESCRIPTION
1.	Fixed wing single engine piston 1-3 seats
2.	Fixed wing single engine piston 4+ seats
3.	Fixed wing two engine piston 1-6 seats
4.	Fixed wing two engine piston 7+ seats
5.	Fixed wing piston other
6.	Fixed wing two engine turboprop 1-12 seats
7.	Fixed wing two engine turboprop 13+ seats
8.	Fixed wing turboprop other
9.	Fixed wing two engine turbojet
10.	Fixed wing turbojet other
11.	Rotorcraft piston
12.	Rotorcraft turbine
13.	Other aircraft

## **2. TABLES OF RESULTS**



TABLE 2 - 1

GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
TYPE OF AIRCRAFT  
1982

PAGE 1 OF 2

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF NUMBER ACTIVE	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
FIXED WING									
FIXED WING - PISTON									
1 ENG: 1-3 SEATS	82090	57670	910	8324678	373691	4.5	145.5	6.1	4.2
1 ENG: 4+ SEATS	118008	106503	887	15934448	472287	3.0	151.0	4.5	3.0
1 ENGINE: TOTAL	200098	164173	1140	24259126	602245	2.5	149.1	3.6	2.4
2 ENG: 1-6 SEATS	18469	16381	303	3039903	176564	5.8	187.2	10.5	5.6
2 ENG: 7+ SEATS	10061	8501	168	2617210	196999	7.5	317.3	23.8	7.5
2 ENGINE: TOTAL	28530	24882	346	5657113	264543	4.7	230.6	10.6	4.6
PISTON: OTHER	341	140	24	33395	9549	28.6	246.8	39.2	15.9
PISTON: TOTAL	228969	189195	1192	29949634	657855	2.2	159.8	3.4	2.1
FIXED WING - TURBOPROP									
2 ENG: 1-12 SEATS	4490	4427	45	1575932	115710	7.3	355.8	25.8	7.3
2 ENG: 13+ SEATS	643	610	28	520393	84280	16.2	852.5	130.1	15.3
2 ENGINE: TOTAL	5133	5037	53	2096325	143150	6.8	394.4	25.9	6.6
TURBOPROP: OTHER	205	149	28	71217	20024	28.1	473.0	84.1	17.8
TURBOPROP: TOTAL	5338	5186	60	2167542	144544	6.7	396.3	25.4	6.4

TABLE 2 - 1

GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
TYPE OF AIRCRAFT  
1982

PAGE 2 OF 2

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF NUMBER ACTIVE	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
FIXED WING - TURBOJET									
2 ENGINE TURBOJET	3475	3309	84	1346860	98437	7.3	407.0	27.7	6.8
TURBOJET: OTHER	889	687	73	263976	46185	17.5	385.3	52.1	13.5
TURBOJET: TOTAL	4364	3996	112	1610836	108733	6.8	404.0	24.9	6.2
FIXED WING: TOTAL	238671	198377	1199	33728012	682268	2.0	170.6	3.4	2.0
ROTORCRAFT									
PISTON	5279	2419	178	579057	57661	10.0	236.8	18.9	8.0
TURBINE	4432	3749	140	1771174	144638	8.2	474.2	33.5	7.1
ROTORCRAFT: TOTAL	9711	6169	228	2350231	155708	6.6	383.2	21.9	5.7
OTHER	6985	5233	211	378700	40432	10.7	72.4	7.2	9.9
TOTAL	255367	209779	1238	36456943	700977	1.9	174.0	3.3	1.9

TABLE 2 - 2  
GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 1 OF 3

STATE	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
ALABAMA	2628	409	482061	115142
ALASKA	6924	639	1254965	194510
ARIZONA	4679	528	795922	126915
ARKANSAS	2994	428	540620	111783
CALIFORNIA	27848	1210	4507097	338484
COLORADO	4982	543	991768	157576
CONNECTICUT	1798	326	395829	98755
DELAWARE	586	183	105220	42182
DC	152	103	46235	33232
FLORIDA	12297	855	2784783	347125
GEORGIA	4997	549	914340	138464
HAWAII	426	158	86169	34428
IDAHO	2376	390	240781	66736
ILLINOIS	7983	684	1358051	239534
INDIANA	3074	425	467946	99881
IOWA	3455	459	550358	118448
KANSAS	3534	463	518701	100826
KENTUCKY	1525	301	466124	230531
LOUISIANA	3742	477	1338612	239921
MAINE	1109	258	148407	56525
MARYLAND	2646	404	448155	100056

TABLE 2 - 2  
GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 2 OF 3

STATE	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
MASSACHUSETTS	2959	433	494631	116732
MICHIGAN	7065	636	1042263	158662
MINNESOTA	4493	523	782795	140933
MISSISSIPPI	2252	375	373273	88182
MISSOURI	4540	532	663160	115779
MONTANA	2193	381	290543	72757
NEBRASKA	1539	306	274925	82405
NEVADA	2018	344	519288	155151
NEW HAMPSHIRE	1197	275	248764	87596
NEW JERSEY	3858	486	880994	182137
NEW MEXICO	2323	373	363421	80071
NEW YORK	8118	604	1011037	155525
NORTH CAROLINA	3740	478	683804	139351
NORTH DAKOTA	1705	327	349529	91065
OHIO	8162	698	1251601	176872
OKLAHOMA	5440	571	694295	108337
OREGON	4789	554	486499	80881
PENNSYLVANIA	6313	611	1298370	245453
RHODE ISLAND	266	134	46570	27080
SOUTH CAROLINA	1768	339	265912	68454

TABLE 2 - 2

GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 3 OF 3

STATE	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
SOUTH DAKOTA	1360	285	143869	39585
TENNESSEE	2924	415	543003	108113
TEXAS	20000	1055	3266007	276719
UTAH	1196	273	204002	60069
VERMONT	532	181	56913	23309
VIRGINIA	2327	374	317093	78664
WASHINGTON	5532	567	877338	147102
WEST VIRGINIA	1227	283	154814	48315
WISCONSIN	3983	493	615821	134394
WYOMING	1462	297	213370	71489
PUERTO RICO	251	127	52284	29801
OTHER U. S. TERRITORIES	72	67	22666	23377
FOREIGN	778	228	359406	154454
TOTAL	209779	1238	36456943	700977

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 3  
GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
REGION OF BASED AIRCRAFT  
1982

REGION	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF TOTAL HOURS	STANDARD ERROR
ALASKAN	6924	639	1254964	194509
CENTRAL	13089	878	2010541	205028
EASTERN	23226	1137	4262336	353901
EUROPEAN OFFICE	261	120	28486	14033
GREAT LAKES	37825	1397	6018034	394904
NEW ENGLAND	7861	689	1392314	183654
NORTHWEST MT.	22530	1126	3296718	257619
SOUTHERN	32604	1324	6700125	459140
SOUTHWESTERN	34690	1347	6419810	406306
WESTERN-PACIFIC	35146	1338	5990741	393311
TOTAL	209779	1238	36456943	700977

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 4

## GENERAL AVIATION TOTAL HOURS FLOWN

BY

## AIRCRAFT TYPE AND PRIMARY USE

1982

PAGE 1 OF 4

AIRCRAFT TYPE	EXECUTIVE	BUSINESS	PERSONAL	INSTRUMENTAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI	OTHER	RENTAL	TOTAL
FIXED WING												
FIXED WING - PISTON												
1 ENG: 1-3 SEATS												
EST. TOT. HOURS	4719	264583	2426487	3089287	1587753	207079	177135	135	30835	74682	528083	8324678
% STD. ERROR	69.1	15.0	4.8	10.4	10.8	23.7	33.3	92.7	69.9	31.8	21.2	4.5
1 ENG: 4+ SEATS												
EST. TOT. HOURS	558494	4698276	5132457	1413022	166904	649504	101427	125769	852273	61513	2268576	15834448
% STD. ERROR	21.4	5.2	5.6	15.1	55.8	25.3	38.6	62.7	18.4	35.5	11.2	3.0
1 ENGINE: TOTAL												
EST. TOT. HOURS	563842	4950256	7552369	4507382	1737376	858509	278730	127214	882639	135963	2796676	24259126
% STD. ERROR	21.2	5.0	4.1	8.6	10.9	19.3	25.4	55.6	17.9	23.6	9.9	2.5
2 ENG: 1-6 SEATS												
EST. TOT. HOURS	732930	1138230	331352	158996	28791	38931	730	0	550259	37423	41981	3039903
% STD. ERROR	16.7	9.2	16.0	60.3	75.5	56.1	53.2	0.0	21.4	40.0	52.3	5.8

TABLE 2 - 4

GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
AIRCRAFT TYPE AND PRIMARY USE  
1982

PAGE 2 OF 4

AIRCRAFT TYPE	EXECUTIVE	BUSINESS	PERSONAL	INSTRUCTIONAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI	OTHER	RENTAL	TOTAL
2 ENG: 7+ SEATS												
EST. TOT. HOURS	864351	471342	71112	24315	8885	31610	28743	535981	584515	66725	10575	2617210
% STD. ERROR	12.5	17.7	30.0	57.9	17.4	55.4	33.7	33.2	18.4	42.4	68.8	7.5
2 ENGINE: TOTAL												
EST. TOT. HOURS	1596558	1605233	402401	183911	40803	70492	30243	535981	1112671	102694	52861	5857113
% STD. ERROR	10.3	8.2	14.2	52.9	54.2	39.8	30.3	33.2	14.2	30.6	42.9	4.7
PISTON: OTHER												
EST. TOT. HOURS	286	72	39	0	3048	287	468	13990	182	4033	11000	33395
% STD. ERROR	134.9	162.9	139.8	0.0	44.0	105.7	162.9	55.2	89.2	36.9	38.5	28.6
PISTON: TOTAL												
EST. TOT. HOURS	2163227	6563406	7954371	4591665	1789622	930425	306674	675204	1995757	241444	2859728	29949634
% STD. ERROR	9.5	4.3	3.9	8.5	10.6	18.1	23.8	28.3	11.3	18.6	9.7	2.2
FIXED WING - TUPBOPROP												
2 ENG: 1-12 SEATS												
EST. TOT. HOURS	1061331	151317	3511	0	0	10657	0	91361	222356	20808	15620	1575932
% STD. ERROR	8.7	33.8	115.3	0.0	0.0	128.3	0.0	84.3	31.2	59.4	107.0	7.3
2 ENG: 13+ SEATS												
EST. TOT. HOURS	124122	1081	0	0	0	0	0	316798	36142	42250	0	520393
% STD. ERROR	28.9	424.4	0.0	0.0	0.0	0.0	0.0	32.1	87.7	64.3	0.0	16.2



TABLE 2 - 4

GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
AIRCRAFT TYPE AND PRIMARY USE  
1982

PAGE 3 OF 4

AIRCRAFT TYPE	EXECUTIVE	BUSINESS	PERSONAL	INSTRUCTIONAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI	OTHER	RENTAL	TOTAL
2 ENGINE: TOTAL												
EST. TOT. HOURS	1176650	152144	3511	0	0	10857	0	398168	251609	52040	15620	2096325
% STD. ERROR	8.3	33.7	115.3	0.0	0.0	128.3	0.0	33.7	29.5	42.0	107.0	6.8
TURBOPROP: OTHER												
EST. TOT. HOURS	2120	0	85	0	62527	321	1734	481	2592	1135	0	71217
% STD. ERROR	191.0	0.0	295.1	0.0	26.1	295.1	183.8	31.5	13.3	93.8	0.0	28.1
TURBOPROP: TOTAL												
EST. TOT. HOURS	1178724	152144	3660	0	62527	11214	1734	397740	254217	53633	15620	2167542
% STD. ERROR	8.3	33.7	108.4	0.0	26.1	118.9	183.8	33.5	29.2	40.1	107.0	6.7
FIXED WING - TURBOJET												
2 ENGINE TURBOJET												
EST. TOT. HOURS	971543	80639	18512	0	0	0	0	10700	228342	37124	0	1346860
% STD. ERROR	9.9	50.1	97.9	0.0	0.0	0.0	0.0	137.5	38.0	85.9	0.0	7.3
TURBOJET: OTHER												
EST. TOT. HOURS	226758	4232	0	0	0	0	0	23548	0	9438	0	263976
% STD. ERROR	17.7	233.1	0.0	0.0	0.0	0.0	0.0	104.7	0.0	151.4	0.0	17.5
TURBOJET: TOTAL												
EST. TOT. HOURS	1198247	84594	18512	0	0	0	0	33628	228342	47595	0	1610836
% STD. ERROR	8.7	49.0	97.9	0.0	0.0	0.0	0.0	83.3	38.0	74.7	0.0	6.8

TABLE 2 - 4

GENERAL AVIATION TOTAL HOURS FLOWN  
BY  
AIRCRAFT TYPE AND PRIMARY USE  
1982

PAGE 4 OF 4

AIRCRAFT TYPE	EXECUTIVE	BUSINESS	PERSONAL	INSTRUCTIONAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI	OTHER	RENTAL	TOTAL
FIXED WING: TOTAL												
EST. TOT. HOURS	4530785	6802477	7976705	4691665	1844909	941610	308335	1086012	2478246	339164	2875469	33728012
% STD. ERROR	5.8	4.2	3.9	8.5	10.4	17.9	23.8	21.6	10.2	17.4	9.7	2.0
ROTORCRAFT												
PISTON												
EST. TOT. HOURS	24728	26029	16135	92852	189382	129394	14224	0	9072	93082	824	579057
% STD. ERROR	34.5	41.5	33.3	26.8	18.2	28.0	58.3	0.0	49.1	34.7	155.6	10.0
TURBINE												
EST. TOT. HOURS	430956	32379	8859	32773	26790	181828	133509	0	709381	188538	32299	1771174
% STD. ERROR	21.9	50.0	55.3	65.8	41.7	35.7	42.3	0.0	18.0	30.4	124.2	8.2
ROTORCRAFT: TOTAL												
EST. TOT. HOURS	455683	58798	25084	125411	196087	313131	147917	0	721241	280941	33786	2350231
% STD. ERROR	20.2	31.3	27.8	24.2	16.7	23.3	37.3	0.0	17.6	23.8	113.2	6.6
OTHER												
EST. TOT. HOURS	627	536	178766	101470	0	6345	14109	0	2088	25126	50759	378700
% STD. ERROR	90.1	40.6	11.2	32.9	0.0	66.3	52.6	0.0	86.7	34.7	33.4	10.7
TOTAL												
EST. TOT. HOURS	4983213	6861454	8182195	4924049	2043005	1255775	467294	1086012	3187468	637975	2961319	36456943
% STD. ERROR	3.8	3.2	3.5	5.8	6.0	10.8	13.6	12.0	5.6	12.4	5.9	1.9

NOTE: ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 1 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
OTHER 01	12516	368521	59929	16.3	60.3	8.9	14.7
OTHER 02	2493	254585	89320	27.2	121.3	31.7	26.2
OTHER 03	1183	114442	23034	20.1	126.8	21.1	16.7
OTHER 04	631	61711	34373	55.7	175.4	80.8	46.1
OTHER 05	61	9781	4043	41.3	438.2	137.0	31.3
OTHER 06	1460	512025	112578	22.0	366.1	79.3	21.7
OTHER 07	354	282662	75806	26.8	878.0	220.0	25.1
OTHER 08	116	5969	3378	56.6	126.1	44.6	35.4
OTHER 09	1601	574622	88501	15.4	405.0	57.0	14.1
OTHER 10	623	106704	48370	45.3	301.7	106.9	35.4
OTHER 11	1728	16217	6729	41.5	45.2	13.3	29.4
OTHER 12	1095	500024	79522	15.9	514.6	71.0	13.8
OTHER 13	3228	121492	18523	15.2	57.9	7.4	12.7
AIRPTSA	240	11721	4387	37.4	66.3	18.3	27.6
AIRTRCAT300	350	109379	15626	14.3	312.5	44.6	14.3
AMD FALC20	216	82888	7928	9.6	383.7	36.7	9.6
AMD FALC50	82	38841	3051	7.9	473.7	37.2	7.9
ARCTICS1A	91	1521	213	14.0	41.8	4.5	10.7
ARONCA15	199	8974	3525	39.3	67.8	15.8	23.3
ARONCA65	138	3522	1532	43.5	49.3	3.3	6.6
ARONCAC3	58	110	29	26.2	14.0	2.4	17.2

NOTE: SEE PAGE 2-36 FOR CODING

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 2 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
AVIAN FALCON	26	836	109	13.1	36.0	4.3	12.0
AYRES S2	839	244677	40536	16.6	361.9	46.4	12.8
AYRES S2T	60	36115	6348	17.6	639.3	67.7	10.6
BALWKSFIR FY	927	46349	10148	21.9	54.1	11.5	21.2
BEAGLEB206	31	2001	477	23.8	74.1	16.5	22.3
BEECH 100	269	98789	14849	15.0	367.2	55.2	15.0
BEECH 17	185	3626	518	14.2	47.4	5.1	10.7
BEECH 18	896	118426	14454	12.2	254.3	27.8	10.9
BEECH 200	737	292589	39596	13.5	397.0	53.7	13.5
BEECH 23	2819	412148	70717	17.2	155.8	26.3	16.9
BEECH 33	1636	172762	23917	13.8	112.7	14.7	13.0
BEECH 35	6770	646818	45074	7.0	106.1	6.7	6.3
BEECH 36	1776	365227	46145	12.6	223.7	25.5	11.4
BEECH 45	290	30774	13221	43.0	132.0	46.9	35.5
BEECH 50	338	37870	13219	34.9	170.9	33.9	19.9
BEECH 55	2238	381721	59073	15.5	189.9	27.5	14.5
BEECH 58	1361	292684	42863	14.6	232.1	31.1	13.4
BEECH 60	418	81682	20121	24.6	196.3	48.0	24.4
BEECH 65	139	38133	12251	32.1	277.7	88.8	32.0
BEECH 80	192	33532	9081	27.1	243.8	61.0	25.0
BEECH 90	667	224706	33417	14.9	336.9	50.1	14.9

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 3 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
BEECH 95	459	63048	15176	24.1	137.4	33.1	24.1
BELL 204	153	16976	1368	8.1	160.5	11.4	7.1
BELL 206	2114	958520	103272	10.8	495.3	49.9	10.1
BELL 47	1446	197618	36444	18.4	242.7	33.4	13.8
BLANCA11	896	8263	5849	70.8	49.1	6.6	13.4
BLANCA1413	263	2626	1309	49.8	43.8	6.6	15.1
BLANCA1419	280	7379	2479	33.6	47.8	13.0	27.2
BLANCA17	1034	83405	8994	10.8	82.6	8.7	10.5
BLANCA7	5714	313438	25999	8.3	80.8	6.2	7.6
BLANCA8	711	92126	11615	12.6	133.9	16.6	12.4
BNORM BN2	118	100537	22274	22.2	884.6	174.6	19.7
BOEING75	1887	93732	32749	34.9	107.8	30.7	28.5
BOEINGB17	15	207	122	58.6	73.0	0.0	0.0
BOEINGC97	15	138	24	17.1	65.0	0.4	0.6
CAMRONMODELO	136	4948	491	9.9	40.4	3.7	9.2
CESSNA120	860	35390	3566	10.1	55.1	5.1	9.3
CESSNA140	2307	77853	10403	13.4	54.5	5.6	10.4
CESSNA150	19509	3627478	247938	6.8	208.5	13.7	6.5
CESSNA170	2397	162295	38654	23.8	87.9	19.6	22.3
CESSNA172	24709	4374922	269497	6.2	186.8	11.3	6.1
CESSNA175	1297	60093	7662	12.8	54.5	6.5	11.8

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 4 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
CESSNA177	2895	284920	38565	13.5	106.1	13.6	12.9
CESSNA180	2682	445285	158558	35.6	185.6	65.4	35.2
CESSNA182	13600	1716977	120352	7.0	133.7	9.1	6.8
CESSNA185	1538	413818	100592	24.3	315.0	69.7	22.1
CESSNA188	1833	455387	61669	13.5	276.7	33.3	12.0
CESSNA195	483	16029	3540	22.1	58.2	10.0	17.8
CESSNA205	192	12352	9042	73.2	93.2	61.0	65.4
CESSNA206	2976	600583	100628	16.8	219.1	35.5	16.2
CESSNA207	394	199438	49598	24.9	516.5	124.7	24.1
CESSNA210	6157	987228	92048	9.3	169.6	15.3	9.0
CESSNA305	255	25907	7003	27.0	153.5	27.7	18.0
CESSNA310	3225	468202	54844	11.7	163.5	17.7	10.8
CESSNA320	335	30772	8694	28.3	111.6	25.7	23.0
CESSNA337	1244	130572	26029	19.9	112.1	21.5	19.2
CESSNA340	929	278132	44384	16.0	309.2	47.1	15.2
CESSNA401	249	48362	18422	38.1	230.5	79.9	34.7
CESSNA402	737	356599	106576	29.9	497.5	146.8	29.5
CESSNA411	173	19834	2795	14.1	146.4	17.2	11.8
CESSNA414	773	192313	39169	20.4	281.3	51.0	18.1
CESSNA421	1301	296467	50044	16.9	241.9	38.9	16.1
CESSNA500	501	192273	41897	21.8	383.8	83.6	21.8

TABLE 2 - 5  
GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
CHILD S1	199	8035	2757	45.7	30.3	13.9	45.7
COMWTH185	107	1165	326	28.0	36.7	7.6	20.8
CONAERLA4	450	56828	5647	10.0	125.8	12.5	10.0
CURTISC46	45	4460	1714	38.4	321.1	58.0	18.1
CURTISTRVAIR	183	2570	469	18.2	63.4	9.3	14.8
CVAC 240	45	244	133	54.5	50.0	0.0	0.0
CVAC BT13	95	345	314	91.0	16.8	4.0	23.9
CVAC P4Y	8	822	93	11.3	144.6	10.8	7.5
DHAV DHC1	86	2120	611	28.8	32.1	8.4	26.3
DHAV DHC2	306	56458	6766	12.0	295.8	31.0	10.5
DHAV DHC6	79	83203	26576	31.9	1104.5	327.0	29.6
DHAVXXDH82	83	2141	335	15.6	40.9	5.2	12.8
DOUG A26	49	511	188	36.7	27.0	7.7	28.3
DOUG DC3	429	56862	12711	22.4	265.4	48.2	18.2
DOUG DC4	83	3250	2753	84.7	135.0	42.1	31.2
DOUG DC6	104	2348	1615	68.8	47.9	30.0	62.8
DOUG DC7	41	11991	4290	35.8	379.8	125.5	33.0
EMAIR MA1	22	3290	642	19.5	199.4	35.8	17.9
EMB 110	73	118821	15698	13.2	1627.7	215.1	13.2
ENSTRMF28	438	74494	24227	32.5	218.5	51.9	23.7
FLEET 168	24	49	41	84.1	20.0	5.2	26.0

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
FRCHLD24	289	2201	389	17.6	33.9	3.3	9.8
FRCHLDC119	34	1659	168	10.2	98.9	5.1	5.2
FRCHLDFH1100	72	3458	941	27.2	94.5	22.5	23.8
FRCHLDM62	223	3028	565	18.7	37.1	4.3	11.6
GLASFLH301	119	6079	594	9.8	64.9	5.2	8.1
GRTLKS2T1	181	13016	6560	50.4	99.0	35.5	35.9
GRUMANG21	44	2578	1012	39.3	159.0	16.9	10.6
GRUMANTBM	35	519	97	18.8	27.5	3.8	14.0
GRUMAVAA1	577	69086	28132	40.7	120.1	48.8	40.7
GRUMAVAA5	320	33842	5346	15.7	108.1	16.7	15.7
GRUMAVG164	664	176130	37190	21.1	369.4	45.5	12.3
GULSTM112	701	59056	14607	24.7	116.6	19.3	16.5
GULSTM500	323	206159	45985	22.3	679.6	121.0	17.8
GULSTM680	335	23947	11993	50.1	97.5	45.9	47.1
GULSTM690TP	428	171608	18018	10.5	401.0	42.1	10.5
GULSTMAA1	599	38873	10454	26.2	71.2	18.0	25.2
GULSTMAA5	1350	229465	52566	22.9	180.9	40.4	22.3
GULSTMG1159	167	78310	17636	22.5	488.9	105.6	22.5
GULSTMG159	137	74534	9954	13.4	544.0	72.7	13.4
GULSTMGA4	80	7420	1066	14.4	136.0	17.0	12.5
HELIO H391	23	820	171	20.9	54.1	9.7	17.9



TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
HELIO H395	21	1477	287	19.4	75.5	13.4	17.8
HILLERUH12	640	66395	17359	26.1	213.1	41.9	19.6
HUGHES269	667	172795	31339	18.1	367.0	59.3	16.2
HUGHES369	631	283458	66882	23.5	577.9	101.5	17.6
HWKSLYDH104	33	1330	638	47.9	214.4	53.9	25.2
HWKSLYDH114	14	0	0	0.0	0.0	0.0	0.0
HYNES B2	125	2220	1845	83.1	53.0	31.0	58.5
INTRCP200	30	2438	196	8.0	89.6	6.3	7.0
ISRAEL1124	152	69431	8975	12.9	456.8	59.0	12.9
JBWSTRDGA15	80	1166	177	15.2	46.2	5.0	10.8
LAIFN10	38	310	81	26.2	24.7	5.4	22.1
LEAR 24	167	62134	12282	19.8	372.1	73.5	19.8
LEAR 35	330	122966	14059	11.4	372.6	42.6	11.4
LET L13	165	17965	3882	21.6	117.5	24.8	21.1
LKHEED1329	136	51974	11379	21.9	382.2	83.7	21.9
LKHEED18	70	2704	1888	69.8	168.2	3.3	2.0
LKHEEDT33	48	0	0	0.0	0.0	0.0	0.0
LUSCOM8	2122	79890	18239	22.8	57.3	12.6	22.1
MARTIN404	29	402	567	141.1	200.0	0.0	0.0
MAULE M4	265	14632	1737	11.9	66.6	7.3	11.0
MAULE M5	410	39084	6938	17.8	95.3	16.9	17.8

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
MCCULHUJ2	35	316	130	41.2	41.7	13.3	32.0
MCLISHFUNK8	137	2983	250	8.4	45.5	3.1	6.7
MNCOUP90	69	442	166	37.5	28.2	5.4	19.0
MOONEYM20	5772	701761	89060	9.8	130.8	12.3	9.4
MTSBSIMU2	364	114697	17817	15.5	317.0	48.7	15.4
MULTECD16	45	1721	235	13.6	55.1	6.2	11.3
NAMER F51	140	4820	481	10.0	57.9	4.3	7.5
NAMER NA260	63	1679	195	11.6	48.9	3.9	8.0
NAMER T6	495	16928	3075	18.2	50.7	7.7	15.1
NAVIONNAVION	1198	55832	3711	6.6	64.7	3.6	5.6
NORD SV4	45	1505	391	26.0	45.6	11.3	24.8
NORWST65	57	2311	528	22.9	92.6	20.0	21.6
ORLHELH19	36	226	776	343.8	190.0	0.0	0.0
PICARDAX6	156	2902	661	22.8	28.2	5.2	18.4
PIPER 600	496	100397	39872	39.7	236.6	88.0	37.2
PIPER J2	66	403	76	19.0	20.5	2.7	13.4
PIPER J3	4135	137344	35855	26.1	65.9	15.3	23.3
PIPER J4	234	4880	932	19.1	55.9	9.2	16.4
PIPER J5	342	10504	3313	31.5	69.5	14.0	20.1
PIPER PA12	1284	58822	17808	30.3	56.3	15.8	28.1
PIPER PA16	352	13992	5976	42.7	51.2	18.7	36.6

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
PIPER PA17	106	2994	635	21.2	51.7	8.2	15.8
PIPER PA18	3431	313389	45038	14.4	122.7	14.7	12.0
PIPER PA20	453	21962	3667	16.7	78.2	12.2	15.6
PIPER PA22	4795	194761	27211	14.0	59.2	6.7	11.4
PIPER PA23	3487	563050	76855	13.6	174.5	23.0	13.2
PIPER PA24	3170	294382	45914	15.6	101.0	15.1	15.0
PIPER PA25	1411	273420	50298	18.4	249.6	35.7	14.3
PIPER PA28	22150	3293241	193852	5.9	156.9	9.1	5.8
PIPER PA30	1248	144395	19481	13.5	127.9	15.1	11.8
PIPER PA31	2090	753792	102529	13.6	415.9	57.2	13.8
PIPER PA31T	545	129593	23309	18.0	237.8	42.8	18.0
PIPER PA32	3985	529110	63042	11.9	136.0	16.0	11.7
PIPER PA34	2140	531423	55014	10.4	248.3	25.7	10.4
PIPER PA36	401	87804	18214	20.8	276.0	46.4	16.8
PIPER PA38	1564	651241	148048	22.7	416.7	94.7	22.7
PIPER PA44	345	142288	72860	51.2	412.4	211.2	51.2
PROPTJ200	66	4855	716	14.7	91.5	12.2	13.3
RAVEN S50	94	921	119	13.0	22.2	2.2	9.9
RAVEN S55	664	24293	4299	17.7	39.7	6.4	16.2
RKWLNA265	341	145192	24494	16.9	465.2	62.2	13.4
ROBSINR22	169	44395	8481	19.1	281.0	51.9	18.5

TABLE 2 - 5

GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
RYAN ST3	158	2824	849	30.1	38.0	7.3	19.3
RYAN STA	32	215	81	37.9	24.5	4.2	17.2
SCHLERKA6	74	2836	335	11.8	42.4	4.6	10.8
SCWZERG184	891	188509	55307	29.3	287.0	70.2	24.4
SCWZERSG1	756	38670	9275	24.0	71.7	14.5	20.1
SCWZERSG2	576	103999	23469	22.6	230.3	43.3	18.8
SEMCO CLNGER	26	658	91	13.9	31.1	3.9	12.6
SKRSKYS55	79	6581	1941	29.5	281.2	52.4	18.6
SKRSKYS58	55	1938	596	30.8	141.0	17.0	12.0
SMITH 600	213	26649	5834	21.9	153.7	2.5	1.6
SNIAS 350	228	61789	17714	28.7	315.9	83.3	26.4
STNSON10	162	1502	277	18.4	28.7	3.7	12.8
STNSONL5	127	2673	377	14.1	53.7	5.2	9.7
STNSONV77	101	1197	296	24.7	32.8	5.0	15.4
STOLAMRC3	214	3040	424	13.9	40.3	4.6	11.4
TCRAFTA	30	236	66	27.8	16.6	3.4	20.3
TCRAFTBC	1797	31794	8421	26.5	44.0	9.3	21.0
TCRAFTBL	225	5038	708	14.1	46.7	5.1	10.8
TRYTEK85	341	4346	1307	30.1	27.7	7.5	27.0
UNIVACGC1	646	30183	9237	30.6	71.5	17.4	24.3
UNIVAR108	1971	46304	7995	17.3	44.7	6.0	13.5

TABLE 2 - 5  
GENERAL AVIATION ANNUAL HOURS BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF TOTAL HOURS	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF MEAN HOURS	STANDARD ERROR	PERCENT STANDARD ERROR
UNIVAR415	2350	85009	15203	17.9	55.6	7.1	12.8
VARGA 2150	33	1354	199	14.7	45.7	5.9	12.9
VARGA G21	99	10964	3130	28.5	129.3	38.2	28.0
WACO ASO	29	156	18	11.7	20.0	1.1	5.3
WACO UPF7	161	411	387	89.3	11.0	0.0	0.0
WACO YK	54	110	23	20.8	10.1	1.2	12.4
WTHRLY201	71	16787	1854	11.0	240.8	25.6	10.6
TOTAL	255367	36456943	700977	1.9	174.0	3.3	1.89

TABLE 2 - 6

GENERAL AVIATION ACTIVE AIRCRAFT  
BY  
TYPE OF AIRCRAFT  
1982

PAGE 1 OF 2

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
FIXED WING						
FIXED WING - PISTON						
1 ENG: 1-3 SEATS	82090	57870	910	1.6	70.3	1.1
1 ENG: 4+ SEATS	118008	106503	687	0.6	90.3	0.6
1 ENGINE: TOTAL	200098	164173	1140	0.7	82.0	0.6
2 ENG: 1-6 SEATS	18469	16381	303	1.8	88.7	1.8
2 ENG: 7+ SEATS	10061	8501	168	2.0	84.5	1.7
2 ENGINE: TOTAL	28530	24882	346	1.4	87.2	1.2
PISTON: OTHER	341	140	24	17.1	41.2	7.0
PISTON: TOTAL	228969	189195	1192	0.6	82.6	0.5
FIXED WING - TURBOPROP						
2 ENG: 1-12 SEATS	4490	4427	45	1.0	98.6	1.0
2 ENG: 13+ SEATS	643	610	28	4.6	94.9	4.4
2 ENGINE: TOTAL	5133	5037	53	1.0	98.1	1.0
TURBOPROP: OTHER	205	149	28	18.9	72.7	13.8
TURBOPROP: TOTAL	5338	5186	60	1.2	97.2	1.1

TABLE 2 - 6  
GENERAL AVIATION ACTIVE AIRCRAFT  
BY  
TYPE OF AIRCRAFT  
1982

PAGE 2 OF 2

AIRCRAFT TYPE	POPULATION SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
FIXED WING - TURBOJET						
2 ENGINE TURBOJET	3475	3308	84	2.5	95.2	2.4
TURBOJET: OTHER	889	687	73	10.7	77.2	8.3
TURBOJET: TOTAL	4364	3996	112	2.8	91.6	2.6
FIXED WING: TOTAL	238671	198377	1199	0.6	83.1	0.5
ROTORCRAFT						
PISTON	5279	2419	178	7.3	45.8	3.4
TURBINE	4432	3749	140	3.7	84.6	3.2
ROTORCRAFT: TOTAL	9711	6169	226	3.7	63.5	2.3
OTHER	6985	5233	211	4.0	74.9	3.0
TOTAL	255367	209779	1238	0.6	82.1	0.5

TABLE 2 - 7

GENERAL AVIATION ACTIVE AIRCRAFT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 1 OF 3

STATE	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
ALABAMA	3559	472	2628	409	73.8	15.1
ALASKA	7873	673	6924	639	87.9	11.1
ARIZONA	6113	595	4679	526	76.5	11.4
ARKANSAS	3235	442	2994	428	92.6	18.3
CALIFORNIA	33408	1298	27848	1210	83.4	4.9
COLORADO	5722	574	4982	543	87.1	12.9
CONNECTICUT	2051	344	1798	326	87.7	21.6
DELAWARE	685	192	586	183	85.5	35.8
DC	156	103	152	103	97.2	92.0
FLORIDA	14787	919	12297	855	83.2	7.8
GEORGIA	5555	573	4997	549	90.0	13.6
HAWAII	539	172	426	158	79.0	38.6
IDAHO	2627	403	2376	390	90.5	20.3
ILLINOIS	9277	729	7983	684	86.1	10.0
INDIANA	4056	478	3074	425	75.8	13.8
IOWA	3873	478	3455	459	89.2	16.2
KANSAS	4262	501	3534	463	82.9	14.6
KENTUCKY	1778	324	1525	301	85.8	23.0
LOUISIANA	4094	497	3742	477	91.4	16.1
MAINE	1350	284	1109	258	82.2	25.8
MARYLAND	2984	424	2646	404	88.7	18.5



TABLE 2 - 7

GENERAL AVIATION ACTIVE AIRCRAFT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 2 OF 3

STATE	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
MASSACHUSETTS	3481	462	2959	433	85.0	16.8
MICHIGAN	8678	700	7065	636	81.4	9.8
MINNESOTA	5868	581	4493	523	76.6	11.7
MISSISSIPPI	2463	391	2252	375	91.4	21.1
MISSOURI	5314	567	4540	532	85.4	13.5
MONTANA	2455	393	2193	381	89.3	21.1
NEBRASKA	2318	379	1539	306	66.4	17.1
NEVADA	2406	373	2018	344	83.9	19.3
NEW HAMPSHIRE	1483	302	1197	275	80.7	24.8
NEW JERSEY	4826	538	3858	486	79.9	13.4
NEW MEXICO	2503	386	2323	373	92.8	20.7
NEW YORK	7627	666	6118	604	80.2	10.6
NORTH CAROLINA	4493	519	3740	478	83.2	14.3
NORTH DAKOTA	1922	343	1705	327	88.7	23.3
OHIO	9459	732	8162	698	86.3	10.0
OKLAHOMA	6010	596	5440	571	90.5	13.1
OREGON	5981	610	4789	554	80.1	12.4
PENNSYLVANIA	7601	657	6313	611	83.1	10.8
RHODE ISLAND	323	143	266	134	82.5	55.5
SOUTH CAROLINA	1991	356	1766	339	88.7	23.3

TABLE 2 - 7

GENERAL AVIATION ACTIVE AIRCRAFT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 3 OF 3

STATE	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
SOUTH DAKOTA	1586	306	1360	285	85.8	24.4
TENNESSEE	3241	436	2924	415	90.2	17.6
TEXAS	23482	1132	20000	1055	85.2	6.1
UTAH	1334	289	1196	273	89.7	28.2
VERMONT	584	189	532	181	91.0	42.8
VIRGINIA	2955	419	2327	374	78.7	16.9
WASHINGTON	6944	624	5532	567	79.7	10.9
WEST VIRGINIA	1334	291	1227	283	92.0	29.2
WISCONSIN	5529	575	3983	493	72.0	11.6
WYOMING	1613	309	1462	297	90.6	25.3
PUERTO RICO	292	134	251	127	85.9	58.7
OTHER U.S. TERRITORIES	80	68	72	67	90.0	112.5
FOREIGN	1161	268	778	228	67.0	25.0
TOTAL	255367		209779	1238	82.1	0.5

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 8  
GENERAL AVIATION ACTIVE AIRCRAFT  
BY  
REGION OF BASED AIRCRAFT  
1982

REGION	ESTIMATE OF POPULATION	STANDARD ERROR	ESTIMATE OF ACTIVE POPULATION	STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
ALASKAN	7873	673	6924	639	87.9	11.1
CENTRAL	15767	949	13069	878	82.9	7.5
EASTERN	28168	1225	23226	1137	82.5	5.4
EUROPEAN OFFICE	527	172	281	120	49.4	27.9
GREAT LAKES	46376	1498	37825	1397	81.6	4.0
NEW ENGLAND	9271	738	7861	689	84.8	10.0
NORTHWEST MT.	26675	1202	22530	1126	84.5	5.7
SOUTHERN	38498	1409	32604	1324	84.7	4.6
SOUTHWESTERN	39520	1418	34690	1347	87.8	4.6
WESTERN-PACIFIC	42647	1440	35148	1338	82.4	4.2
TOTAL	255367		209779	1238	82.1	0.5

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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GENERAL AVIATION AIRCRAFT  
BY AIRCRAFT TYPE AND PRIMARY USE  
1982

PAGE 1 OF 4

AIRCRAFT TYPE	ACTIVE USE									
	TOTAL ACTIVE	EXECU- TIVE	BUSI- NESS	PERSO- NAL	INSTRUC- TIONAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI
FIXED WING - PISTON										
1 ENG: 1-3 SEATS										
EST. NO. ACT.	57670	43	3415	35614	8117	5580	1126	636	34	137
% STD. ERROR	A	D	B	A	A	A	C	C	D	D
EST. % ACT.	70.3									
1 ENG: 4+ SEATS										
EST. NO. ACT.	106503	2689	33442	51691	4965	364	1877	551	178	2682
% STD. ERROR	A	B	A	A	B	D	B	D	D	B
EST. % ACT.	90.3									
1 ENGINE: TOTAL										
EST. NO. ACT.	164173	2731	36857	87305	13083	5943	3003	1187	212	2819
% STD. ERROR	A	B	A	A	A	A	B	C	D	B
EST. % ACT.	82.0									
2 ENG: 1-6 SEATS										
EST. NO. ACT.	16381	2565	7533	3024	453	181	178	8	0	1705
% STD. ERROR	A	B	A	B	D	D	D	D	A	B
EST. % ACT.	88.7									

\*\*\*\*\* STANDARD ERROR \*\*\*\*\* CODE \*\*\*\*\*

\*\*\*\*\* GREATER LESS THAN \*\*\*\*\*

\*\*\*\*\* THAN OR \*\*\*\*\*

\*\*\*\*\* EQUAL TO \*\*\*\*\*

\*\*\*\*\* 0 % 10 % A \*\*\*\*\*

\*\*\*\*\* 10 % 20 % B \*\*\*\*\*

\*\*\*\*\* 20 % 30 % C \*\*\*\*\*

\*\*\*\*\* 30 % D \*\*\*\*\*

\*\*\*\*\* \*\*\*\*\*

TABLE 2 - 9

GENERAL AVIATION AIRCRAFT  
BY AIRCRAFT TYPE AND PRIMARY USE  
1982

PAGE 2 OF 4

AIRCRAFT TYPE		ACTIVE USE											
		EXECU- TIVE	BUSI- NESS	PERSO- NAL	INSTRUC- TIONAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI	OTHER	RENTAL	INACTIV
2 ENG: 7+ SEATS	TOTAL ACTIVE												
	EST. NO. ACT.	8501	2816	2315	550	98	107	137	58	477	1405	87	1580
	% STD. ERROR	A	B	B	C	D	B	D	D	C	B	D	
	EST. % ACT.	84.5											
2 ENGINE: TOTAL	EST. NO. ACT.	24882	5380	9847	3573	551	267	315	68	477	3109	328	3648
	% STD. ERROR	A	A	A	B	C	D	D	D	C	B	D	
	EST. % ACT.	87.2											
PISTON: OTHER	EST. NO. ACT.	140	4	2	4	0	50	5	2	22	4	13	201
	% STD. ERROR	A	D	D	D	A	C	D	D	D	D	D	
	EST. % ACT.	41.2											
PISTON: TOTAL	EST. NO. ACT.	189195	8115	46707	90882	13634	6261	3324	1256	711	5932	9401	39774
	% STD. ERROR	A	A	A	A	A	A	B	B	C	A	A	
	EST. % ACT.	82.6											
FIXED WING - TURBOPROP													
2 ENG: 1-12 SEATS	EST. NO. ACT.	4427	3035	569	29	0	0	24	0	80	457	34	63
	% STD. ERROR	A	A	C	D	A	A	D	A	D	C	D	
	EST. % ACT.	98.6											
2 ENG: 13+ SEATS	EST. NO. ACT.	610	287	2	0	0	0	0	0	214	36	0	32
	% STD. ERROR	A	C	D	A	A	A	A	A	C	D	A	
	FST. % ACT.	94.9											

STANDARD ERROR		CODE	
LESS THAN		OR	
GREATER THAN		EQUAL TO	
0 %	10 %	A	A
10 %	20 %	B	B
20 %	30 %	C	C
30 %		D	D



TABLE 2 - 9

GENERAL AVIATION AIRCRAFT  
BY AIRCRAFT TYPE AND PRIMARY USE  
1982

PAGE 4 OF 4

AIRCRAFT TYPE	ACTIVE USE												
	TOTAL ACTIVE	EXECU- TIVE	BUSI- NESS	PERSO- NAL	INSTRUC- TIONAL	AERIAL APPL	AERIAL OBS	OTHER WORK	COMMUTER CARRIER	AIR TAXI	OTHER	RENTAL	INACTIV
FIXED WING: TOTAL													
EST.NO.ACT.	198377	14497	47508	90981	13634	6362	3350	1261	1070	6824	3470	9435	40293
% STD. ERROR	A	A	A	A	A	A	B	B	B	A	B	A	A
EST. % ACT.	83.1												
ROTORCRAFT													
PISTON													
EST.NO.ACT.	2419	190	201	356	379	677	352	51	0	43	168	3	2860
% STD. ERROR	A	C	D	C	C	B	C	D	A	D	C	D	
EST. % ACT.	45.8												
TURBINE													
EST.NO.ACT.	3749	1048	151	130	78	116	364	249	0	1184	403	26	681
% STD. ERROR	A	B	D	D	D	D	C	D	A	B	C	D	
EST. % ACT.	84.6												
ROTORCRAFT: TOTAL													
EST.NO.ACT.	6169	1238	352	486	457	793	715	300	0	1227	571	29	3540
% STD. ERROR	A	B	C	C	C	B	B	D	A	B	C	D	
EST. % ACT.	63.5												
OTHER													
EST.NO.ACT.	5233	4	13	3373	618	0	98	172	0	71	505	380	1752
% STD. ERROR	A	D	D	A	C	A	D	D	A	D	C	C	
EST. % ACT.	74.9												
TOTAL													
EST.NO.ACT.	209779	15739	47873	94820	14708	7155	4164	1733	1070	8122	4546	9844	45507
% STD. ERROR	A	A	A	A	A	A	B	B	B	A	A	A	A
EST. % ACT.	82.1												

\*\*\*\*\* STANDARD ERROR \*\*\*\*\*

* * * * *	CODE	* * * * *
* * * * *	LESS THAN	* * * * *
* * * * *	OR	* * * * *
* * * * *	EQUAL TO	* * * * *
* * * * *	-----	* * * * *
* * * * *	0 %	* * * * *
* * * * *	10 %	* * * * *
* * * * *	20 %	* * * * *
* * * * *	30 %	* * * * *
* * * * *	30 %	* * * * *
* * * * *	D	* * * * *

\*\*\*\*\*

TABLE 2 - 10

GENERAL AVIATION ACTIVE AIRCRAFT  
IFR FLOWN AND TRANSPONDER EQUIPPED  
1982

PAGE 1 OF 2

AIRCRAFT TYPE	ESTIMATED NUMBER OF A/C IFR FLOWN	PERCENT STANDARD ERROR	ESTIMATED PERCENT OF ACTIVE A/C IFR FLOWN	ESTIMATED NUMBER OF A/C IFR FLOWN WITH TRANSPONDER	PERCENT STANDARD ERROR	ESTIMATED PERCENT OF IFR WITH TRANSPONDER
FIXED WING						
FIXED WING - PISTON						
1 ENG: 1-3 SEATS	4332	B	7.5	3703	B	85.5
1 ENG: 4+ SEATS	51221	A	48.1	50859	A	99.3
1 ENGINE: TOTAL	55553	A	33.8	54561	A	98.2
2 ENG: 1-6 SEATS	15160	A	92.5	15076	A	99.4
2 ENG: 7+ SEATS	8491	A	99.9	8381	A	98.7
2 ENGINE: TOTAL	23651	A	95.1	23458	A	99.2
PISTON: OTHER	129	C	91.8	129	C	100.0
PISTON: TOTAL	79332	A	41.9	78148	A	98.5
FIXED WING - TURBOPROP						
2 ENG: 1-12 SEATS	4427	A	100.0	4427	A	100.0
2 ENG: 13+ SEATS	610	A	100.0	610	A	100.0
2 ENGINE: TOTAL	5037	A	100.0	5037	A	100.0
TURBOPROP: OTHER	27	D	17.8	27	D	100.0
TURBOPROP: TOTAL	5064	A	97.6	5064	A	100.0

\*\*\*\*\*

STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

\*\*\*\*\*



TABLE 2 - 10

GENERAL AVIATION ACTIVE AIRCRAFT  
IFR FLOWN AND TRANSPONDER EQUIPPED  
1982

PAGE 2 OF 2

AIRCRAFT TYPE	ESTIMATED NUMBER OF A/C IFR FLOWN	PERCENT STANDARD ERROR	ESTIMATED PERCENT OF ACTIVE A/C IFR FLOWN	ESTIMATED NUMBER OF A/C IFR FLOWN WITH TRANSPONDER	PERCENT STANDARD ERROR	ESTIMATED PERCENT OF IFR WITH TRANSPONDER
FIXED WING - TURBOJET						
2 ENGINE TURBOJET	3309	A	100.0	3309	A	100.0
TURBOJET: OTHER	687	A	100.0	687	A	100.0
TURBOJET: TOTAL	3996	A	100.0	3996	A	100.0
FIXED WING: TOTAL	88392	A	44.6	87564	A	99.1
ROTORCRAFT						
PISTON	10	D	0.4	7	D	72.2
TURBINE	435	D	11.6	435	D	100.0
ROTORCRAFT: TOTAL	445	D	7.2	442	D	99.4
OTHER	7	D	0.1	3	D	43.0
TOTAL	88844	A	42.4	88009	A	99.1

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

STANDARD ERROR	CODE
GREATER THAN	A
LESS THAN	B
OR	C
EQUAL TO	D
0 %	
10 %	
20 %	
30 %	

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP

PAGE 1 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
OTHER 01	12516	6110	425	7.0	48.8	3.4
OTHER 02	2493	2099	159	7.6	84.2	6.4
OTHER 03	1183	902	102	11.3	76.3	8.6
OTHER 04	631	352	110	31.3	55.8	17.5
OTHER 05	61	22	6	27.0	36.6	9.9
OTHER 06	1460	1398	53	3.8	95.8	3.6
OTHER 07	354	322	31	9.6	90.9	8.7
OTHER 08	116	47	21	44.2	40.8	18.0
OTHER 09	1601	1419	89	6.2	88.6	5.5
OTHER 10	623	354	100	28.3	56.8	16.1
OTHER 11	1728	358	105	29.3	20.7	6.1
OTHER 12	1095	972	77	7.9	88.7	7.0
OTHER 13	3228	2099	177	8.4	65.0	5.5
AIRPTSA	240	177	45	25.3	73.7	18.6
AIRTRCAT300	350	350	0	0.0	100.0	0.0
AMD FALC20	216	216	0	0.0	100.0	0.0
AMD FALC50	82	82	0	0.0	100.0	0.0
ARCTICS1A	91	36	3	9.0	40.0	3.6
ARONCA15	199	132	42	31.6	66.5	21.0
ARONCA65	138	71	31	43.0	51.8	22.3
ARONCAC3	58	8	2	19.8	13.5	2.7

NOTE: OTHER XX REFERS TO ALL GENERAL AVIATION AIRCRAFT  
BELONGING TO MANUFACTURER/MODEL GROUPS OF FEWER THAN  
20 AIRCRAFT IN SIZE FOR AIRCRAFT XX WHERE XX STANDS FOR

- 01 FIXED WING PISTON, 1 ENGINE, 1-3, SEATS.
- 02 FIXED WING PISTON, 1 ENGINE, 4+ SEATS.
- 03 FIXED WING PISTON, 2 ENGINE, 1-6 SEATS.
- 04 FIXED WING PISTON, 2 ENGINE, 7+ SEATS.
- 05 FIXED WING PISTON, OTHER.
- 06 FIXED WING TURBOPROP, 2 ENGINES, 1-12 SEATS.
- 07 FIXED WING TURBOPROP, 2 ENGINES, 13+ SEATS.
- 08 FIXED WING TURBOPROP, OTHER.
- 09 FIXED WING TURBOJET, 2 ENGINES.
- 10 FIXED WING TURBOJET, OTHER.
- 11 ROTORCRAFT, PISTON.
- 12 ROTORCRAFT, TURBINE.
- 13 OTHER AIRCRAFT.

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 2 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
AVIAN FALCON	28	23	1	5.3	89.2	4.7
AYRES S2	839	676	71	10.5	80.6	3.4
AYRES S2T	60	56	8	14.0	94.2	13.2
BALWKSFIREFY	927	856	48	5.6	92.3	5.1
BEAGLEB206	31	27	2	8.4	87.1	7.3
BEECH 100	269	269	0	0.0	100.0	0.0
BEECH 17	185	77	7	9.4	41.4	3.9
BEECH 18	896	459	26	5.8	51.3	2.9
BEECH 200	737	737	0	0.0	100.0	0.0
BEECH 23	2819	2645	83	3.2	93.8	3.0
BEECH 33	1636	1533	73	4.7	93.7	4.4
BEECH 35	6770	6094	180	2.9	90.0	2.7
BEECH 36	1776	1633	89	5.4	91.9	5.0
BEECH 45	290	233	56	24.2	80.4	19.4
BEECH 50	338	222	64	28.7	65.6	18.8
BEECH 55	2238	2010	111	5.5	89.8	5.0
BEECH 58	1361	1261	74	5.9	92.7	5.4
BEECH 60	418	416	13	3.2	99.5	3.2
BEECH 65	139	137	4	3.2	98.8	3.1
BEECH 80	192	138	14	10.4	71.6	7.4
BEECH 90	667	667	0	0.0	100.0	0.0

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 3 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
BEECH 95	459	459	0	0.0	100.0	0.0
BELL 204	153	106	4	3.9	69.1	2.7
BELL 206	2114	1935	74	3.8	91.5	3.5
BELL 47	1446	814	100	12.3	56.3	6.9
BLANCA11	896	168	117	69.5	18.8	13.1
BLANCA1413	263	60	28	47.5	22.8	10.8
BLANCA1419	280	154	30	19.7	55.1	10.9
BLANCA17	1034	1009	23	2.3	97.6	2.2
BLANCA7	5714	3881	128	3.3	67.9	2.2
BLANCA8	711	688	15	2.1	98.7	2.1
BNORM BN2	118	114	11	10.1	96.3	9.7
BOEING75	1887	870	176	20.2	46.1	9.3
BOEINGB17	15	3	2	58.6	18.9	11.1
BOEINGC97	15	2	0	17.1	14.2	2.4
CAMRONMODELO	136	122	5	3.8	90.0	3.4
CESSNA120	860	642	25	3.9	74.7	2.9
CESSNA140	2307	1429	121	8.4	61.9	5.2
CESSNA150	19509	17398	341	2.0	89.2	1.7
CESSNA170	2397	1846	154	8.4	77.0	6.4
CESSNA172	24709	23423	267	1.1	94.8	1.1
CESSNA175	1297	1103	52	4.7	85.0	4.0

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 4 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
CESSNA177	2895	2686	114	4.2	92.8	3.9
CESSNA180	2682	2400	124	5.2	89.5	4.6
CESSNA182	13600	12844	205	1.6	94.4	1.5
CESSNA185	1538	1314	132	10.0	85.4	8.6
CESSNA188	1833	1646	103	6.2	89.8	5.6
CESSNA195	483	285	37	13.0	59.0	7.7
CESSNA205	192	133	44	32.8	69.0	22.7
CESSNA206	2976	2741	116	4.2	92.1	3.9
CESSNA207	394	386	23	6.0	98.0	5.9
CESSNA210	6157	5822	136	2.3	94.6	2.2
CESSNA305	255	169	34	20.1	66.2	13.3
CESSNA310	3225	2864	127	4.4	88.8	3.9
CESSNA320	335	276	45	16.4	82.3	13.5
CESSNA337	1244	1165	63	5.4	93.6	5.1
CESSNA340	929	900	43	4.7	96.8	4.6
CESSNA401	249	210	33	15.8	84.3	13.3
CESSNA402	737	717	34	4.7	97.3	4.6
CESSNA411	173	135	11	7.8	78.3	6.1
CESSNA414	773	684	63	9.3	88.4	8.2
CESSNA421	1301	1226	62	5.1	94.2	4.8
CESSNA500	501	501	0	0.0	100.0	0.0

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 5 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
CHILD S1	199	199	0	0.0	100.0	0.0
COMWTH185	107	32	6	18.7	29.6	5.5
CONAERLA4	450	450	0	0.0	100.0	0.0
CURTISC46	45	14	5	33.9	30.9	10.5
CURTISTRVAIR	183	40	4	11.1	22.0	2.4
CVAC 240	45	5	3	54.5	10.8	5.9
CVAC BT13	95	20	18	87.9	21.6	18.9
CVAC P4Y	8	6	0	8.5	71.1	6.1
DHAV DHC1	88	66	8	11.7	76.9	9.0
DHAV DHC2	308	191	11	6.0	62.3	3.8
DHAV DHC6	79	75	9	12.0	95.4	11.4
DHAVXXDH82	83	52	5	9.0	63.1	5.7
DOUG A26	49	19	4	23.3	38.6	9.0
DOUG DC3	429	214	28	13.0	49.9	6.5
DOUG DC4	83	24	19	78.7	29.0	22.8
DOUG DC6	104	49	14	28.2	47.2	13.3
DOUG DC7	41	32	4	13.7	77.0	10.6
EMAIR MA1	22	17	1	7.7	75.0	5.7
EMB 110	73	73	0	0.0	100.0	0.0
ENSTRMF28	438	283	55	19.4	64.7	12.5
FLEET 168	24	2	2	79.9	10.2	8.1

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 6 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
FRCHLD24	289	65	9	14.3	22.4	3.2
FRCHLDC119	34	17	1	8.7	50.3	4.4
FRCHLDFH1100	72	37	5	13.3	50.8	6.7
FRCHLDM62	223	82	12	14.6	36.6	5.4
GLASFLH301	119	94	5	5.5	78.8	4.3
GRTLKS2T1	181	131	47	35.4	72.6	25.7
GRUMANG21	44	16	6	37.8	36.9	13.9
GRUMANTBM	35	19	2	12.6	53.9	6.8
GRUMAVAA1	577	575	13	2.2	99.7	2.2
GRUMAVAA5	320	320	0	0.0	100.0	0.0
GRUMAVG164	664	477	82	17.1	71.8	12.3
GULSTM112	701	506	93	18.4	72.2	13.3
GULSTM500	323	303	41	13.4	93.9	12.6
GULSTM680	335	246	42	17.0	73.3	12.5
GULSTM690TP	428	428	0	0.0	100.0	0.0
GULSTMAA1	599	560	40	7.2	93.5	6.7
GULSTMAA5	1350	1268	64	5.0	94.0	4.7
GULSTMG1159	167	167	0	0.0	100.0	0.0
GULSTMG159	137	137	0	0.0	100.0	0.0
GULSTMG44	80	55	4	7.1	68.2	4.8
HELIO H391	23	15	2	10.7	65.9	7.1



TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 7 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
HELIO H395	21	20	2	7.9	93.1	7.3
HILLERUH12	640	312	53	17.2	48.7	8.4
HUGHES269	667	471	39	8.2	70.6	5.8
HUGHES369	631	491	77	15.7	77.7	12.2
HMKSLEYDH104	33	6	3	40.8	18.8	7.7
HMKSLEYDH114	14	0	0	0.0	0.0	0.0
HYNES B2	125	42	25	59.0	33.5	19.8
INTRCP200	30	27	1	4.0	90.7	3.6
ISRAEL1124	152	152	0	0.0	100.0	0.0
JBMSTRDGA15	80	25	3	10.6	31.6	3.3
LAIKFN10	38	13	2	14.1	33.1	4.7
LEAR 24	167	167	0	0.0	100.0	0.0
LEAR 35	330	330	0	0.0	100.0	0.0
LET L13	165	153	7	4.5	92.7	4.2
LKHEED1329	136	136	0	0.0	100.0	0.0
LKHEED18	70	16	11	69.8	23.0	16.0
LKHEEDT33	48	1	2	138.3	3.0	4.1
LUSCOM8	2122	1393	82	5.9	65.7	3.9
MARTIN404	29	2	3	141.0	6.9	9.8
MAULE M4	265	220	10	4.6	82.9	3.8
MAULE M5	410	410	0	0.0	100.0	0.0

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982

PAGE 8 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
MCCULLUHJ2	35	8	2	25.9	21.7	5.6
MCLISHFUNK8	137	66	3	5.0	47.8	2.4
MNCOLUP90	69	16	5	32.4	22.7	7.3
MOONEYM20	5772	5363	152	2.8	92.9	2.6
MTSBSIMU2	364	362	8	2.3	99.4	2.3
MULTECD16	45	31	2	7.7	69.5	5.3
NAMER F51	140	83	5	6.6	59.4	3.9
NAMER NA260	63	34	3	8.5	54.5	4.6
NAMER T8	495	334	34	10.1	67.5	6.8
NAVIONNAVION	1198	864	31	3.6	72.1	2.6
NORD SV4	45	33	3	7.8	73.3	5.7
NORWST85	57	25	2	7.5	43.8	3.3
ORLHELH19	36	1	4	343.8	3.3	11.3
PICARDAX8	156	103	14	13.5	65.9	8.9
PIPER 600	496	424	59	13.9	85.6	11.9
PIPER J2	66	20	3	13.5	29.7	4.0
PIPER J3	4135	2085	246	11.8	50.4	5.9
PIPER J4	234	87	9	9.8	37.3	3.7
PIPER J5	342	151	37	24.3	44.2	10.7
PIPER PA12	1284	1044	118	11.3	81.3	9.2
PIPER PA16	352	273	60	22.0	77.7	17.1

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP

PAGE 9 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
PIPER PA17	106	58	8	14.2	54.6	7.7
PIPER PA18	3431	2554	203	8.0	74.4	5.9
PIPER PA20	453	281	17	5.9	62.0	3.7
PIPER PA22	4795	3341	277	8.3	69.7	5.8
PIPER PA23	3487	3226	115	3.6	92.5	3.3
PIPER PA24	3170	2915	126	4.3	92.0	4.0
PIPER PA25	1411	1095	127	11.6	77.6	9.0
PIPER PA28	22150	21082	257	1.2	95.2	1.2
PIPER PA30	1248	1129	73	6.5	90.4	5.9
PIPER PA31	2090	1862	84	4.5	89.1	4.0
PIPER PA31T	545	545	0	0.0	100.0	0.0
PIPER PA32	3985	3890	81	2.1	97.6	2.0
PIPER PA34	2140	2140	0	0.0	100.0	0.0
PIPER PA36	401	317	39	12.2	79.1	9.7
PIPER PA38	1564	1563	9	0.6	99.9	0.6
PIPER PA44	345	345	0	0.0	100.0	0.0
PROPIJT200	66	53	3	6.3	80.4	5.1
RAVEN S50	94	41	3	8.3	44.1	3.7
RAVEN S55	684	612	43	7.0	92.2	6.5
RKWEELNA265	341	312	32	10.3	91.5	9.4
ROBSINR22	169	158	8	4.9	93.5	4.5

TABLE 2 - 11

GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP

PAGE 10 OF 11

1982

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
RYAN ST3	158	74	17	23.1	47.0	10.9
RYAN STA	32	9	3	33.7	27.5	9.3
SCHLERKA6	74	87	3	4.8	90.3	4.3
SCHZERG164	891	657	107	16.2	73.7	12.0
SCHZERSG1	758	539	70	13.0	71.3	9.3
SCHZERSG2	576	452	56	12.5	78.4	9.8
SEMCO CLINGER	26	21	1	5.9	81.4	4.8
SKRSKYS55	79	23	5	22.9	29.6	6.8
SKRSKYS58	55	14	4	28.3	25.0	7.1
SMITH 600	213	173	38	21.8	81.4	17.8
SNIAS 350	228	196	22	11.2	85.8	9.6
STNSON10	162	52	7	13.3	32.3	4.3
STNSONL5	127	50	5	10.2	39.2	4.0
STNSONV7/	101	37	7	19.3	36.2	7.0
STOLAMRC3	214	75	6	8.0	35.2	2.8
TCRAFTA	30	14	3	19.0	47.4	9.0
TCRAFTBC	1797	722	116	16.1	40.2	6.5
TCRAFTBL	225	108	10	9.0	47.9	4.3
TRYTEK65	341	157	21	13.2	46.0	6.1
UNIVACGC1	646	422	79	18.6	65.4	12.2
UNIVAR108	1971	1037	112	10.8	52.6	5.7

TABLE 2 - 11  
GENERAL AVIATION ACTIVE AIRCRAFT BY SDR AIRCRAFT  
MANUFACTURER/MODEL GROUP  
1982  
PAGE 11 OF 11

MANUFACTURER/ MODEL GROUP	GROUP SIZE	ESTIMATE OF ACTIVE AIRCRAFT	STANDARD ERROR	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	STANDARD ERROR
UNIVAR415	2350	1528	191	12.5	65.0	8.1
VARGA 2150	33	30	2	7.1	89.7	6.4
VARGA G21	99	85	5	5.7	85.7	4.9
WACO ASO	29	8	1	10.4	26.9	2.8
WACO UPF7	161	37	33	89.3	23.2	20.7
WACO YK	54	11	2	16.8	20.3	3.4
WTHRLY201	71	70	2	3.0	98.2	3.0
TOTAL	255367	209779	1238	0.6	82.1	0.5

TABLE 2 - 12

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY AIRCRAFT TYPE  
1982

PAGE 1 OF 6

AIRCRAFT TYPE	IMC DAY				IMC NIGHT				TOTALS			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
--FIXED WING---												
PISTON - 1 ENGINE												
1-3 SEATS	3128	460	86138	26585	1287	299	13738	6569	3197	465	99877	29455
4+ SEATS	45446	1356	1447961	99891	27396	1215	403537	35413	45687	1356	1850782	121260
TOTAL 1 ENGINE	48574	1432	1534099	103369	28683	1251	417275	36018	48883	1434	1950659	124786
PISTON - 2 ENGINES												
1-6 SEATS	13728	391	614096	62855	11021	508	226286	30449	13800	386	840159	82565
7+ SEATS	7202	196	561729	132593	6335	267	317910	74907	7249	190	879243	179281
TOTAL 2 ENGINE	20930	437	1175826	146737	17356	574	544196	80859	21048	430	1719402	197380
OTHER PISTON	62	14	5520	1500	56	14	6069	1905	62	14	11408	3154
TOTAL PISTON	69565	1497	2715445	179497	46096	1376	967541	88539	69993	1497	3681469	233539
TURBOPROPS - 2 ENGINES												
1-12 SEATS	4358	56	431782	44224	4166	108	173029	19756	4360	56	604678	57544
13+ SEATS	609	8	145366	48310	609	8	80576	28279	609	8	225942	73181
TOTAL 2 ENGINE	4967	57	577148	65495	4774	108	253605	34496	4969	57	830620	93096
OTHER TURBOPRP	33	20	820	520	27	19	264	227	33	20	1084	727
TOTAL TURBOPRP	5000	60	577967	65497	4801	110	253869	34497	5002	60	831704	93099

TABLE 2 - 12

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY AIRCRAFT TYPE  
1982

PAGE 2 OF 6

AIRCRAFT TYPE	IMC DAY				IMC NIGHT				TOTALS			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
--FIXED WING - CONTINUED												
TURBOJETS												
2 ENGINE	3150	87	343843	63426	3087	102	111722	14350	3150	87	455584	72914
OTHER TURBOJET	625	0	58399	29359	549	81	22347	6802	685	0	82940	35937
TOTAL TURBOJET	3835	87	402242	69891	3636	130	134068	15881	3835	87	538505	81289
ALL FIXED WING	78400	1501	3695654	203454	54533	1387	1355479	96340	78830	1501	5051678	264227
--ROTORCRAFT---												
PISTON	89	56	4260	3542	3	6	431	1354	89	56	4691	4119
TURBINE	375	118	15516	5893	321	114	7973	3590	375	118	23489	9141
TOTAL ROTORCRAFT	464	130	19775	6876	324	114	8404	3837	464	130	28180	10026
--OTHER AIRCRAFT---	62	51	267	252	0	0	0	0	62	51	267	252
TOTALS	78926	1507	3715933	203571	54857	1392	1363970	96416	79356	1507	5080936	264417

NOTE: ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 12

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY AIRCRAFT TYPE  
1982

PAGE 3 OF 6

AIRCRAFT TYPE	VMC DAY			VMC NIGHT			TOTALS		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN
--FIXED WING---									
PISTON - 1 ENGINE									
1-3 SEATS	57190	171	7567899	20699	923	580812	57460	110	8152017
4+ SEATS	105604	258	12128057	66825	1328	1589454	106267	110	13714670
TOTAL 1 ENGINE	162794	310	19695955	87524	1617	2170266	163727	155	21866687
PISTON - 2 ENGINES									
1-6 SEATS	16233	98	1875783	13692	403	545915	16244	96	2423246
7+ SEATS	7964	162	1362936	8961	229	428553	8138	134	1790866
TOTAL 2 ENGINE	24197	189	3238719	20653	463	974468	24382	165	4214111
OTHER PISTON	139	4	16443	78	16	12686	139	4	24147
TOTAL PISTON	187130	363	22951117	108256	1682	3157420	188248	226	26104945
TURBOPROPS - 2 ENGINES									
1-12 SEATS	4118	117	878338	3557	184	193164	4118	117	1070966
13+ SEATS	579	32	226364	577	33	98515	579	32	324877
TOTAL 2 ENGINE	4697	122	1104702	4134	187	291678	4697	122	1395843
OTHER TURBOPRP	149	0	31640	77	23	20202	149	0	51842
TOTAL TURBOPRP	4846	122	1136342	4211	188	311880	4846	122	1447685



TABLE 2 - 12

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY AIRCRAFT TYPE  
1982

PAGE 4 OF 6

AIRCRAFT TYPE	NUMBER ACTIVE AIRCRAFT	VMC DAY			VMC NIGHT			TOTALS					
		STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	
--FIXED WING - CONTINUED													
TURBOJETS													
2 ENGINE	3156	86	687428	63181	2818	145	217091	42372	3156	86	904519	83302	
OTHER TURBOJET	494	91	146730	33211	490	92	37225	11364	494	91	183956	40155	
TOTAL TURBOJET	3649	125	834158	71378	3308	172	254316	43869	3649	125	1088474	92476	
ALL FIXED WING	195625	403	24921618	562673	115774	1701	3723616	167676	196743	286	28641105	630654	
--ROTORCRAFT---													
PISTON	2354	46	493616	46306	960	119	100562	22874	2364	45	594234	56714	
TURBINE	3639	60	1596009	131418	2342	187	154486	38245	3743	7	1750795	135334	
TOTAL ROTORCRAFT	5993	76	2089925	139337	3302	222	255048	44564	6107	45	2345029	146737	
--OTHER AIRCRAFT---	5167	51	384047	40121	10	5	784	1002	5171	51	384861	40121	
TOTALS	206784	413	27397337	581056	119085	1716	3979703	173500	208022	294	31376007	848742	

NOTE: ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 12

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY AIRCRAFT TYPE  
1982

AIRCRAFT TYPE	DAY - TOTAL				NIGHT - TOTAL			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
--FIXED WING---								
PISTON - 1 ENGINE								
1-3 SEATS	57399	132	7654563	339729	20827	924	594590	65137
4+ SEATS	106038	193	13575449	432322	67633	1323	1992419	123261
TOTAL 1 ENGINE	163438	234	21230013	549835	88460	1813	2587008	139413
PISTON - 2 ENGINES								
1-6 SEATS	16378	6	2491446	157497	14034	382	771887	91920
7+ SEATS	8451	54	1923751	153799	7448	184	745953	102132
TOTAL 2 ENGINE	24828	54	4415197	220135	21483	424	1517840	137408
OTHER PISTON	140	0	20236	7771	81	16	17800	5149
TOTAL PISTON	188406	240	25665446	592316	110024	1668	4122648	195814
TURBOPROPS - 2 ENGINES								
1-12 SEATS	4427	0	1308916	119954	4168	108	365614	34729
13+ SEATS	610	0	371690	61849	609	8	179074	41931
TOTAL 2 ENGINE	5037	0	1680606	134960	4776	108	544688	54446
OTHER TURBOPRP	149	0	32460	8959	77	23	20466	9924
TOTAL TURBOPRP	5186	0	1713066	135257	4853	110	565154	55343

TABLE 2 - 12

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY AIRCRAFT TYPE  
1982

AIRCRAFT TYPE	DAY - TOTAL				NIGHT - TOTAL			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
---FIXED WING - CONTINUED								
TURBOJETS								
2 ENGINE	3309	0	1031270	76884	3140	90	328813	46402
OTHER TURBOJET	687	0	219540	34238	549	81	59572	12831
TOTAL TURBOJET	3996	0	1250810	83980	3689	121	388385	48143
ALL FIXED WING	197589	240	28629322	613339	118566	1676	5076187	209102
---ROTORCRAFT---								
PISTON	2409	10	497644	46489	963	119	100993	22892
TURBINE	3674	48	1611824	131125	2342	187	162459	39866
TOTAL ROTORCRAFT	6083	49	2109468	139122	3305	222	263453	45971
---OTHER AIRCRAFT---	5229	4	384280	40182	10	5	784	1002
TOTALS	208901	245	31117478	630202	121880	1691	5339465	214098

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 13

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY REGION OF BASED AIRCRAFT  
1982

PAGE 1 OF 3

REGION	IMC DAY			IMC NIGHT			TOTALS		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN
ALASKAN	850	221	108956	489	164	26623	864	221	135350
CENTRAL	5164	610	276278	3872	533	147482	5166	610	423759
EASTERN	9658	818	494480	7201	710	174677	9814	826	669157
EUROPEAN OFFICE	56	57	1840	39	51	374	56	57	2214
GREAT LAKES	14362	979	747193	10399	834	261112	14396	979	1007748
NEW ENGLAND	3117	481	150106	2497	433	114537	3172	485	264643
NORTHWEST MT.	6270	669	214664	4194	550	87076	6396	676	301740
SOUTHERN	15959	1023	892674	10871	837	267658	15960	1023	1159796
SOUTHWESTERN	12634	900	518777	8698	734	189408	12701	902	710765
WESTERN-PACIFIC	10926	855	371100	6924	679	137601	10938	855	508703
TOTALS	78926	1507	3715933	54857	1392	1363970	79356	1507	5080936
									264417

NOTE: ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 13

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY REGION OF BASED AIRCRAFT  
1982

PAGE 2 OF 3

REGION	VMC DAY			VMC NIGHT			TOTALS		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR
ALASKAN	6581	665	1091692	177358	2886	440	47398	6585	665
CENTRAL	13065	945	1401667	135995	7303	720	261501	13214	950
EASTERN	22531	1191	2912853	260092	14531	999	515029	22589	1192
EUROPEAN OFFICE	106	85	7874	5442	34	35	461	106	85
GREAT LAKES	36423	1450	4011086	269845	21022	1167	746700	36847	1454
NEW ENGLAND	8206	753	1092402	148639	5100	616	172791	8257	756
NORTHWEST MT.	20864	1148	2444035	201988	10731	862	236326	21038	1153
SOUTHERN	31338	1370	4808526	349231	20433	1150	737614	31451	1372
SOUTHWESTERN	34434	1425	5085438	316267	18318	1079	697287	34770	1431
WESTERN-PACIFIC	33199	1379	4504443	315679	19528	1109	620851	33314	1382
TOTALS	206784	413	27397337	581056	119085	1716	3979703	208022	294

NOTE: ROW AND COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

TABLE 2 - 13

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY REGION OF BASED AIRCRAFT  
1982

PAGE 3 OF 3

REGION	DAY - TOTAL			NIGHT - TOTAL		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN
ALASKAN	6803	673	1200649	2716	441	73777
CENTRAL	13350	954	1677938	7571	728	408982
EASTERN	22754	1195	3407334	14995	1011	689705
EUROPEAN OFFICE	106	85	9713	50	51	836
GREAT LAKES	36696	1454	4756720	21510	1177	1007005
NEW ENGLAND	8211	753	1242625	5212	622	287315
NORTHWEST MT.	21078	1152	2658694	11006	868	323403
SOUTHERN	31554	1373	5701293	20853	1157	1004925
SOUTHWESTERN	34879	1431	5621420	18717	1089	887008
WESTERN-PACIFIC	33459	1383	4876045	19869	1116	758401
TOTALS	208901	245	31117478	121880	1691	5339465
						214098

NOTE: COLUMN: SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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GENERAL AVIATION ACTIVITY AND AVIONICS SURVEY(U)

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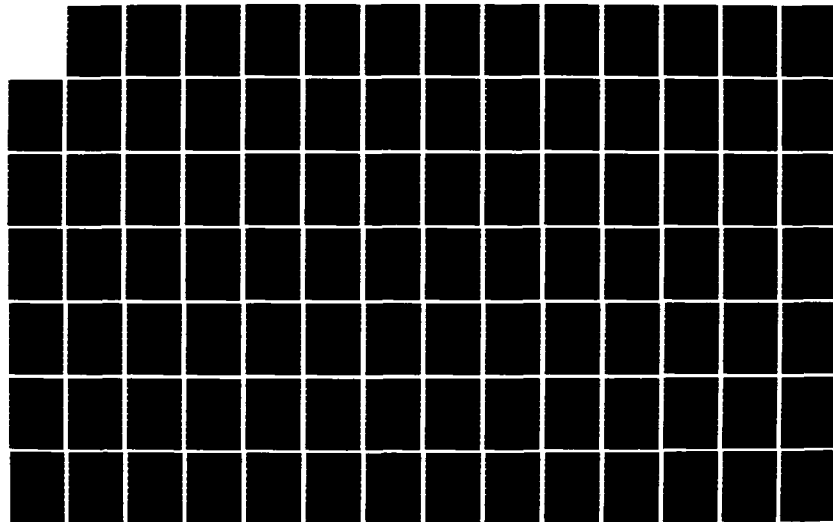
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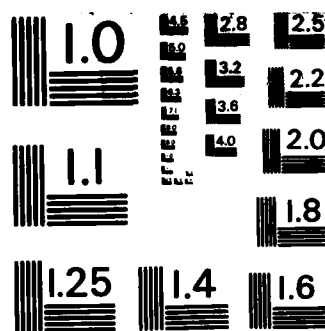
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MICROCOPY RESOLUTION TEST CHART  
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TABLE 2 - 14

GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982

PAGE 1 OF 22

MANUFACTURER/ MODEL GROUP	IMC				VMC			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
OTHER 01	166	102	3387	2189	6086	39	378230	57810
OTHER 02	596	197	32779	15069	2099	0	166643	36006
OTHER 03	511	113	11415	4241	865	45	98695	21450
OTHER 04	326	57	72018	52734	352	0	43042	28472
OTHER 05	12	3	1378	454	22	0	9505	2878
OTHER 06	1325	62	126413	21732	1292	73	398819	119724
OTHER 07	322	0	157237	71832	320	9	153204	28459
OTHER 08	27	9	849	418	47	0	5120	1845
OTHER 09	1238	90	166798	35658	1372	48	379553	62495
OTHER 10	354	0	21884	4567	172	103	68985	42417
OTHER 11	53	50	159	151	305	50	7974	2969
OTHER 12	324	113	23517	10198	972	0	488853	69329
OTHER 13	72	60	145	120	2027	60	136080	17895
AIRPTSA	0	0	0	0	177	0	17798	2738
AIRTRCAT300	0	0	0	0	350	0	104749	17335
AMD FALC20	216	0	29840	9206	194	26	56945	15303
AMD FALC50	82	0	6384	844	82	0	35500	3758
ARCTICS1A	0	0	0	0	36	0	1491	181
ARONCA15	0	0	0	0	132	0	11248	1386
ARONCAB5	0	0	0	0	71	0	3522	233
ARONCAC3	0	0	0	0	8	0	110	19

NOTE: SEE PAGE 2-36 FOR CODING

TABLE 2 - 14

**GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982**

**PAGE 2 OF 22**

MANUFACTURER/ MODEL GROUP	IMC			VMC				
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
AVIAN FALCON	0	0	0	0	23	0	876	108
AYRES S2	0	0	0	0	678	0	247843	35098
AYRES S2	0	0	0	0	58	0	31480	4593
AYRES S2T	0	0	0	0	858	0	46848	10351
BALWKSFIREFY	18	3	233	56	27	0	1769	390
BEAGLEB206	269	0	49088	16342	269	0	66019	15567
BEECH 100	17	4	109	705	77	0	3737	430
BEECH 17	233	25	24472	5464	454	5	92774	13528
BEECH 18	737	0	132876	29973	658	57	176163	39841
BEECH 18	916	180	41024	22667	2645	0	303842	53210
BEECH 18	1105	141	26260	19357	1530	13	141218	22608
BEECH 200	3391	334	79121	62678	6094	0	559997	35409
BEECH 23	1314	134	75952	21838	1630	13	302570	37955
BEECH 33	0	0	0	0	233	0	30774	10932
BEECH 35	222	0	6765	1721	222	0	31105	7875
BEECH 36	1953	75	135819	32028	2010	0	305356	43677
BEECH 45	1261	0	70814	11848	1261	0	218303	34517
BEECH 50	416	0	10428	6837	412	21	74124	21193
BEECH 55	105	19	14154	8759	133	7	25089	6304
BEECH 58	124	9	10783	3750	134	4	25049	7465
BEECH 60	667	0	107480	22768	628	48	174671	37736

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GENERAL AVIATION ANNUAL HOURS FLOWN  
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BY SDR MANUFACTURER/MODEL GROUP  
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MANUFACTURER/ MODEL GROUP	IMC				VMC			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
BEECH 65	417	72	4954	9777	459	0	34433	8227
BEECH 80	3	2	5	134	106	0	16331	1283
BEECH 90	65	50	3279	8423	1933	9	935311	102710
BEECH 95	30	30	1408	366	813	7	204726	32712
BELL 204	0	0	0	0	168	0	8263	1111
BELL 206	0	0	0	0	60	0	2454	422
BELL 47	19	17	276	799	154	0	8574	1752
BLANCA11	503	85	10336	3362	1008	7	75708	10261
BLANCA1413	70	30	1613	1149	3830	25	300162	24375
BLANCA1419	6	8	305	191	685	6	86186	11984
BLANCA17	96	23	14371	480	114	0	90897	18606
BLANCA7	0	0	0	0	870	0	88558	27762
BLANCA7	0	0	0	0	3	0	207	0
BLANCA8	0	0	0	0	0	0	0	0
BNORM RN2	0	0	0	0	122	0	4863	456
BOEING75	12	8	118	36	641	3	33825	3478
BOEINGB17	3	9	12	0	1429	0	78544	9071
BOEINGC97	1443	325	50162	15093	17398	0	3451076	248142
CANRONMODELO	39	49	62	0	1846	0	167986	40725
CESSNA120	10045	664	508294	69113	23300	97	3798470	269852
CESSNA140	109	49	995	411	1103	0	52501	5184

**GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982**

MANUFACTURER/ MODEL GROUP	IMC			VMC		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN
CESSNA150	931	234	40735	15305	15	212720
CESSNA170	417	159	13757	8011	0	311816
CESSNA172	5567	491	201981	40399	0	1605509
CESSNA175	358	157	6317	3163	0	399554
CESSNA177	0	0	0	0	0	466901
CESSNA180	80	30	693	988	0	12208
CESSNA182	43	35	2165	1271	0	10066
CESSNA185	1158	241	36784	18167	0	595127
CESSNA188	306	76	112240	51847	92	81370
CESSNA195	4445	296	182467	30255	33	731782
CESSNA205	54	27	1448	1358	0	24767
CESSNA206	2425	169	128715	20944	83	367475
CESSNA207	258	28	8943	11379	27	22191
CESSNA210	765	124	13368	8355	0	128216
CESSNA305	900	0	135332	30808	0	193668
CESSNA310	190	27	7807	4705	7	41665
CESSNA320	635	73	80963	20589	35	179951
CESSNA337	99	12	4756	912	0	15618
CESSNA340	640	52	42284	13243	0	148710
CESSNA401	1218	24	112778	30710	78	224556
CESSNA402	501	0	70957	43842	36	128600

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GENERAL AVIATION ANNUAL HOURS FLOWN  
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MANUFACTURER/ MODEL GROUP	IMC				VMC			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
CESSNA411	0	0	0	0	199	0	2687	1163
CESSNA414	0	0	0	0	32	0	1293	280
CESSNA421	177	152	1950	14038	450	0	48342	4431
CESSNA500	9	3	1936	1177	11	2	2524	745
CHILD S1	0	0	0	0	40	0	2771	399
COMWTH185	1	1	14	0	5	0	195	0
CONAERLA4	6	3	0	38	20	0	380	95
CURTISC46	0	0	0	0	6	0	154	0
CURTISTRVAIR	0	0	0	0	66	0	1898	535
CURTISTRVAIR	5	3	109	7	191	0	60331	6606
CVAC 240	66	18	10016	3808	75	0	97972	33551
CVAC BT13	0	0	0	0	52	0	2384	271
CVAC P4Y	0	0	0	0	19	0	646	212
DHAV DHC1	114	22	5797	3394	209	7	51549	10624
DHAV DHC2	0	0	0	0	24	0	3250	1014
DHAV DHC2	25	11	2738	841	48	4	1858	1620
DHAV DHC6	21	6	6770	2095	32	0	7478	2433
DHAVXXDH82	0	0	0	0	17	0	3977	609
DOUG A26	73	0	52507	18064	52	15	66313	7856
DOUG DC3	0	0	0	0	283	0	81017	17323
DOUG DC4	0	0	0	0	2	0	49	13

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BY WEATHER AND LIGHT CONDITIONS  
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MANUFACTURER/ MODEL GROUP	IMC			VMC		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR
DOUG DC6	0	0	0	0	65	215
DOUG DC7	6	1	329	434	17	62
EMAIR MA1	0	0	0	0	37	847
EMB 110	0	0	0	0	82	410
ENSTRMF28	0	0	0	0	94	491
ENSTRMF28	0	0	0	0	131	847
FLEET 16B	0	0	0	0	18	274
FRCHLD24	0	0	0	0	19	80
FRCHLD24	299	139	554	201	575	10961
FRCHLDC119	2	13	75	861	320	3892
FRCHLDFH1100	0	0	0	0	477	22284
FRCHLDM62	381	77	14293	2715	506	8183
GLASFLH301	294	30	93783	65287	217	25965
GRTLKS2T1	185	39	3893	2457	244	11565
GRUMANG21	428	0	74456	14472	372	19130
GRUMANT8M	177	90	3032	1446	560	10395
GRUMAVAA1	485	139	8348	2617	1268	57743
GRUMAVAA5	167	0	12373	5224	167	15986
GRUMAVG184	137	0	17228	3905	132	10673
GULSTM112	21	4	354	154	55	1024
GULSTM500	1	1	32	289	15	161

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MANUFACTURER/ MODEL GROUP	IMC			VMC		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR
GULSTM680	0	0	0	0	20	285
GULSTM690TP	8	12	2418	2125	304	11787
GULSTM6A1	5	8	295	150	468	33137
GULSTMAA5	0	0	0	0	491	55815
GULSTMG1159	4	1	385	120	6	214
GULSTMG159	0	0	0	0	0	0
GULSTMG44	0	0	0	0	42	1299
HELIO H391	10	2	248	61	27	167
HELIO H395	152	0	23210	9408	119	11125
HILLERUH12	4	1	38	403	25	89
HILLERUH12	0	0	0	0	13	74
HUGHES269	167	0	11461	3284	167	9109
HUGHES369	330	0	68787	24547	330	21600
HWKSLYDH104	0	0	0	0	153	4039
HWKSLYDH114	136	0	19450	10705	94	6062
HYNES B2	16	0	514	119	16	68
INTRCP200	0	0	0	0	1	0
ISRAEL1124	3	7	159	1113	1392	19781
JBWSTRDGA15	2	0	297	0	2	0
LAIKFH10	13	7	120	21	220	1561
LEAR 24	84	77	464	5253	410	6881

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GENERAL AVIATION ANNUAL HOURS FLOWN  
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MANUFACTURER/ MODEL GROUP	IMC				VMC			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
LEAR 35	0	0	0	0	8	0	364	117
LET L13	0	0	0	0	66	0	3105	217
LKHEED1329	0	0	0	0	16	0	442	84
LKHEED18	2894	316	94288	16909	5359	17	595042	62253
LKHEEDT33	362	0	34806	5415	356	14	93559	16188
LUSCOM8	4	2	16	105	31	0	1954	238
MARTIN404	8	3	54	430	83	0	4433	366
MAULE M4	6	2	54	19	34	0	1697	150
MAULE M5	4	7	9	38	334	0	18560	2204
MCCULLHJ2	123	25	2135	204	860	5	51915	3116
MCLISHFUNK8	0	0	0	0	33	0	1848	474
MNCOLUP90	0	0	0	0	25	0	2542	607
MOONEYM20	0	0	0	0	1	0	226	0
MTSBSIMUJ2	3	5	149	444	100	5	2750	1329
MULTECD16	311	84	31600	23791	424	0	56038	25362
NAMER F51	0	0	0	0	20	0	419	56
NAMER NA260	0	0	0	0	2085	0	136055	28107
NAMER T6	1	1	329	3	86	1	3986	526
NAVIONNAVIOM	0	0	0	0	151	0	10755	2347
PORD S14	0	0	0	0	1044	0	61827	17831
NORWST65	0	0	0	0	273	0	13992	5123



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MANUFACTURER/ MODEL GROUP	IMC				VMC			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
ORLHELH19	2	2	20	0	56	2	3127	694
PICARDAX6	126	102	25115	5084	2428	102	314074	45199
PIPER 600	18	8	104	840	281	0	22688	4231
PIPER J2	246	149	1900	524	3341	0	199454	27183
PIPER J3	2473	209	129181	24861	3226	0	488515	69708
PIPER J4	1346	263	17200	65968	2915	0	251162	39767
PIPER J5	9	27	549	0	1095	0	309902	45064
PIPER PA12	7682	610	382433	44772	21082	0	2925985	187001
PIPER PA16	987	85	36860	9287	1129	0	115878	14273
PIPER PA17	1739	71	328833	120630	1739	72	435401	41017
PIPER PA18	545	0	58591	17921	545	0	73512	22169
PIPER PA20	2713	274	94809	20011	3890	0	442355	63158
PIPER PA22	1778	129	119301	18817	2140	0	416538	51442
PIPER PA22	0	0	0	0	317	0	89584	17697
PIPER PA23	11	29	232	1501	1563	0	612158	163913
PIPER PA24	345	0	36748	27104	345	0	126989	55627
PIPER PA25	23	4	688	317	53	0	3353	348
PIPER PA28	0	0	0	0	41	0	943	102
PIPER PA28	0	0	0	0	612	0	25286	3962
PIPER PA30	312	0	75115	19204	312	0	86450	28322
PIPER PA31	1	3	264	368	157	3	41460	8928

**GENERAL AVIATION ANNUAL HOURS FLOWN  
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**IMC**

**VNC**

MANUFACTURER/ MODEL GROUP	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
PIPER PA31	4	5	60	1200	70	5	2714	1543
PIPER PA31T	0	0	0	0	9	0	214	44
PIPER PA32	0	0	0	0	67	0	2866	320
PIPER PA34	0	0	0	0	657	0	189476	44785
PIPER PA36	0	0	0	0	539	0	37460	7729
PIPER PA38	0	0	0	0	452	0	103267	23208
PIPER PA44	0	0	0	0	21	0	707	103
PROPTJ200	0	0	0	0	23	0	4254	662
RAVEN S50	0	0	0	0	14	0	1891	263
RAVEN S55	118	46	1286	310	173	0	24722	589
RKWNLLNA265	48	25	1057	5994	196	0	61213	17439
ROBSINR22	0	0	0	0	52	0	1453	198
RYAN ST3	0	0	0	0	50	0	2269	246
RYAN STA	0	0	0	0	37	0	971	168
SCHLERKA6	2	1	12	0	75	0	2842	360
SCWZERG184	0	0	0	0	14	0	227	58
SCHWZERSG1	0	0	0	0	722	0	32342	6809
SCHWZERSG2	0	0	0	0	108	0	5514	620
SEMCO CLNGER	0	0	0	0	157	0	4390	1196
SKRSKYS55	56	50	57	0	422	0	33067	8053
SKRSKYS58	33	32	97	20	1037	0	47513	6755

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MANUFACTURER/ MODEL GROUP	IMC				VMC			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
SMITH 600	7	24	33	265	1528	0	91155	13026
SNIAS 350	1	1	5	30	30	0	1338	189
STNSON10	5	4	24	8	85	0	7021	1182
STNSONL5	0	0	0	0	8	0	180	10
STNSONV77	0	0	0	0	37	0	411	0
STOLAMRC3	0	0	0	0	11	0	110	14
TCRAFTA	0	0	0	0	70	0	16968	2122
TOTALS	79356	1507	5080936	284417	208022	294	31376007	648742

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
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MANUFACTURER/ MODEL GROUP	DAY			NIGHT		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR
OTHER 01	6068	52	376524	57875	191	4678
OTHER 02	2009	88	166545	37397	866	14120
OTHER 03	902	0	81917	14087	667	19115
OTHER 04	352	0	97269	47055	162	12835
OTHER 05	22	0	7403	2115	11	1210
OTHER 06	1398	0	420676	113625	1281	22092
OTHER 07	322	0	192876	55945	322	36407
OTHER 08	47	0	3563	1060	27	1578
OTHER 09	1419	0	397941	55124	1227	39128
OTHER 10	354	0	128627	27244	172	11209
OTHER 11	358	0	7921	2892	0	0
OTHER 12	921	53	430353	64858	764	31559
OTHER 13	2099	0	136124	17990	0	0
AIRPTSA	177	0	17798	2738	0	0
AIRTRCAT300	350	0	101374	19035	75	2559
AMD FALC20	216	0	67129	8806	216	3493
AMD FALC50	82	0	27167	2747	82	1184
ARCTICS1A	36	0	1475	180	3	7
ARONCA15	132	0	9892	1409	132	23
ARONCA65	71	0	3522	233	0	0
ARONCAC3	8	0	110	19	0	0

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MANUFACTURER/ MODEL GROUP	DAY			NIGHT				
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
AVIAN FALCON	23	0	876	106	0	0	0	0
AYRES S2	676	0	230795	28656	121	68	17048	11404
AYRES S2	56	0	17907	6803	30	17	13574	4201
AYRES S2T	856	0	46846	10351	0	0	0	0
BALWKSFIREFY	27	0	1690	396	16	3	311	34
BEAGLEB206	269	0	90788	9085	269	0	24319	6166
BEECH 100	77	0	3715	438	23	4	131	385
BEECH 17	459	0	83746	13819	283	24	33500	4425
BEECH 18	737	0	243347	38437	737	0	65693	10623
BEECH 18	2645	0	304246	51956	1393	189	40596	19882
BEECH 18	1533	0	145702	18215	1120	139	21777	94815
BEECH 200	6084	27	557131	36957	4379	302	81394	31554
BEECH 23	1633	0	334174	36280	1277	140	44348	12258
BEECH 33	233	0	30623	10902	80	62	151	1203
BEECH 35	222	0	31319	6096	222	0	6550	3848
BEECH 36	2010	0	308855	47087	1707	162	122320	40589
BEECH 45	1261	0	223522	29019	1177	74	65595	13022
BEECH 50	416	0	62621	14004	416	0	21929	8063
BEECH 55	137	0	24113	6273	101	20	15130	7483
BEECH 58	138	0	29773	8782	134	4	5915	1620
BEECH 60	667	0	196253	38788	667	0	85899	22035

**GENERAL AVIATION ANNUAL HOURS FLOWN  
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MANUFACTURER/ MODEL GROUP	DAY			NIGHT				
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
BEECH 65	459	0	33448	8080	417	72	5849	11031
BEECH 80	106	0	14826	1243	51	5	1510	269
BEECH 90	1935	0	891159	102674	1182	136	47431	20471
BEECH 95	811	10	180116	29108	334	79	26019	13770
BELL 204	168	0	8263	1111	0	0	0	0
BELL 206	60	0	2416	408	7	7	38	263
BELL 47	154	0	8236	1844	57	25	614	1984
BLANCA11	1009	0	79641	9547	693	79	6451	1792
BLANCA1413	3865	14	292387	23859	737	87	9285	1693
BLANCA1419	688	0	83980	11465	273	43	2563	867
BLANCA17	114	0	93900	18714	105	17	10343	1172
BLANCA7	870	0	88171	27766	77	71	387	894
BLANCA7	3	0	207	0	0	0	0	0
BLANCA8	0	0	0	0	0	0	0	0
BNORM BN2	122	0	4861	456	2	2	2	197
BOEING75	636	6	32077	3326	219	28	1865	668
BOEING817	1429	0	73584	7791	494	104	4972	1877
BOEINGC97	17384	34	3146543	225554	11352	561	354757	36088
CAMRONMODELO	1786	61	146355	30721	1031	171	21693	10808
CESSNA120	23342	79	3755166	274829	16173	620	559394	55768
CESSNA140	1101	7	50132	4819	591	83	3354	1242

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MANUFACTURER/ MODEL GROUP	DAY				NIGHT			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
CESSNA150	2686	0	208827	28466	1624	241	44628	15448
CESSNA170	2400	0	307696	89747	591	181	17878	8781
CESSNA172	12844	0	1573565	120966	8224	475	233885	46623
CESSNA175	1191	103	317139	91484	731	175	88733	60170
CESSNA177	1646	0	465611	58682	145	99	1272	2792
CESSNA180	285	0	11493	2272	186	32	1379	1042
CESSNA182	133	0	8776	5663	89	35	3455	2372
CESSNA185	2741	0	589609	122499	1485	243	42374	34586
CESSNA188	386	0	166622	41168	181	94	26987	9942
CESSNA195	5822	0	761873	58393	4244	310	152376	37246
CESSNA205	169	0	23480	3794	75	29	2736	1724
CESSNA206	2863	12	351925	43314	2556	145	144254	26038
CESSNA207	276	0	27511	6531	262	25	3610	4230
CESSNA210	1165	0	126521	27715	801	121	15061	8487
CESSNA305	900	0	274790	42811	900	0	54210	11729
CESSNA310	210	0	41953	12568	94	45	7518	3419
CESSNA320	717	0	180700	48188	646	68	60214	22774
CESSNA337	135	0	16541	2475	121	9	3822	587
CESSNA340	684	0	154682	29678	645	49	36313	8218
CESSNA401	1226	0	252687	34620	1213	30	84648	27021
CESSNA402	501	0	161241	36467	501	0	38316	10770

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MANUFACTURER/ MODEL GROUP	DAY				NIGHT			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
CESSNA411	199	0	2687	1163	0	0	0	0
CESSNA414	32	0	1273	276	3	2	20	114
CESSNA421	450	0	49342	4431	177	152	1950	10575
CESSNA500	14	0	2277	593	14	0	2183	741
CHILD S1	40	0	2771	399	0	0	0	0
COMWTH185	5	0	207	0	1	1	11	9
CONAERLA4	20	0	380	95	6	3	0	38
CURTISC46	6	0	154	0	0	0	0	0
CURTISTRVAIR	66	0	1871	527	5	5	24	6
CURTISTRVAIR	191	0	58479	6606	42	7	1961	162
CVAC 240	75	0	84829	17913	66	16	43159	19357
CVAC BT13	52	0	2384	271	0	0	0	0
CVAC P4Y	19	0	617	185	3	3	26	0
DHAV DHC1	214	0	27092	7834	116	22	30606	12126
DHAV DHC2	24	0	2932	902	21	6	318	108
DHAV DHC2	49	0	2067	939	25	11	1656	1894
DHAV DHC6	32	0	6176	1868	20	6	8004	4427
DHAVXXDH82	17	0	3878	624	3	2	99	0
DOUG A26	73	0	82091	11062	73	0	36730	8377
DOUG DC3	283	0	72219	14619	149	53	8797	14718
DOUG DC4	2	0	49	13	0	0	0	0



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GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982

**PAGE 17 OF 22**

MANUFACTURER/ MODEL GROUP	DAY			NIGHT				
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
DOUG DC6	65	0	2141	215	4	2	15	135
DOUG DC7	17	0	2024	108	2	1	43	364
EMAIR MA1	37	0	2772	758	5	3	126	107
EMB 110	82	0	3102	411	3	2	6	916
ENSTRMF28	94	0	6079	491	0	0	0	0
ENSTRMF28	131	0	8378	847	0	0	0	0
FLEET 16B	16	0	2575	279	2	2	4	0
FRCHLD24	19	0	535	78	8	2	11	2
FRCHLD24	575	0	36719	10226	443	117	2267	881
FRCHLDC119	320	0	27525	3880	235	69	1294	1436
FRCHLDFH1100	477	0	183421	22284	0	0	0	0
FRCHLDW52	505	9	44821	8071	405	72	13711	2530
GLASFLH301	303	0	31424	23950	298	23	179291	48198
GRTLKS2T1	246	0	10866	6808	229	22	13783	12458
GRUMANG21	428	0	138844	16844	383	35	33233	6658
GRUMANT8M	560	0	31585	8072	286	97	7142	1795
GRUMAVAA1	1268	0	219643	53095	1004	117	25635	7736
GRUMAVAA5	167	0	64645	13048	167	0	14360	8413
GRUMAVG164	137	0	59656	9579	137	0	15983	5220
GULSTM112	55	0	6951	1026	24	4	303	135
GULSTM500	15	0	842	163	5	1	43	902

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GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	DAY			NIGHT		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR
GULSTM680	20	0	1628	285	3	155
GULSTM690TP	312	0	54298	10621	80	3477
GULSTMAA1	463	10	127681	19460	345	19554
GULSTMAA5	491	0	222693	48494	298	30958
GULSTMG1159	6	0	1036	242	2	84
GULSTMG159	0	0	0	0	0	0
GULSTMG44	42	0	2220	1299	0	0
HELIO H391	27	0	2249	157	19	38
HELIO H395	152	0	49385	10584	152	13082
HILLERUH12	25	0	961	92	5	76
HILLERUH12	13	0	247	67	2	8
HUGHES269	167	0	44116	7992	167	4459
HUGHES369	330	0	113456	19613	330	3238
HWKSLYDH104	150	4	17204	4064	3	432
HWKSLYDH114	136	0	42307	9876	112	1502
HYNES B2	16	0	1528	608	16	661
INTRCP200	1	0	0	0	0	0
ISRAEL1124	1390	8	82138	19700	175	7366
JBMSTRDGA15	2	0	249	0	2	0
LAIKFN10	220	0	12710	1463	91	262
LEAR 24	410	0	27351	5707	300	9266

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**GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982**

**PAGE 19 OF 22**

MANUFACTURER/ MODEL GROUP	DAY			NIGHT		
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR
LEAR 35	8	0	316	95	3	1
						48
LET L13	64	1	3040	228	11	2
						74
LKHEED1329	16	0	441	84	1	2
						1
LKHEED18	5363	0	58873	57568	3652	295
						102457
LKHEED133	362	0	100074	14145	356	14
						28280
LUSCOM8	31	0	1888	231	19	3
						82
MARTIN104	83	0	4447	369	8	3
						40
MAULE M4	34	0	1736	152	6	2
						14
MAULE M5	334	0	18162	2153	86	29
						385
MCCULLHJ2	862	3	49034	2991	428	36
						5009
MCLISHFUNKB	33	0	1848	474	0	0
						0
MNCOUP90	25	0	2535	607	1	1
						7
MOONEYH20	1	0	228	0	0	0
						0
MTSBSIMJ2	103	0	2901	553	0	0
						0
MULTECD16	424	0	44858	13652	311	84
						42780
NAMER F51	20	0	419	56	0	0
						0
NAMER NA260	2085	0	136045	28105	3	14
						10
NAMER T6	87	0	4251	573	11	
						30
NAVIONRAVION	151	0	10695	2360	18	15
						60
PAORD SV4	994	62	57443	16397	167	106
						4329
PORWST65	273	0	13992	5123	0	0
						0

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GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	DAY				NIGHT			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
ORLHELH19	58	0	3038	494	5	4	67	0
PICARDAX6	2554	0	332616	46378	416	174	6573	4916
PIPER 600	264	8	21846	4024	103	16	946	2268
PIPER J2	3341	0	179208	22766	1261	276	22147	7789
PIPER J3	3226	0	437641	51540	2819	164	159848	49511
PIPER J4	2915	0	248237	40730	1683	261	20126	4460
PIPER J5	1095	0	308913	45346	9	27	1538	88
PIPER PA12	21023	89	2831467	187378	14441	613	452028	45409
PIPER PA16	1129	0	130131	15480	822	114	22607	4776
PIPER PA17	1831	37	548493	90704	1832	36	215741	47995
PIPER PA18	545	0	102288	20528	472	57	29815	12795
PIPER PA20	3890	0	483682	68709	2865	263	53284	13934
PIPER PA22	2140	0	433023	48650	1951	97	102817	22305
PIPER PA22	317	0	89559	17702	11	17	25	336
PIPER PA23	1471	79	517291	132080	1348	116	95099	37268
PIPER PA24	345	0	148266	75877	241	75	15472	5070
PIPER PA25	53	0	3644	375	24	4	396	773
PIPER PA28	41	0	943	102	0	0	0	0
PIPER PA28	612	0	25286	3962	0	0	0	0
PIPER PA30	312	0	120606	13278	312	0	40959	9884
PIPER PA31	158	0	40189	8428	56	17	1535	1462

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GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	DAY				NIGHT			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
PIPER PA31	74	0	2774	542	0	0	0	0
PIPER PA31T	9	0	214	44	0	0	0	0
PIPER PA32	88	1	2858	368	1	1	10	27
PIPER PA34	657	0	189478	44785	0	0	0	0
PIPER PA36	539	0	37460	7729	0	0	0	0
PIPER PA38	452	0	103267	23208	0	0	0	0
PIPER PA44	21	0	683	93	2	1	23	64
PROPT200	23	0	4254	862	0	0	0	0
RAVEN S50	14	0	1872	265	2	1	19	0
RAVEN S55	173	0	17651	4792	173	0	8357	4792
RKWELLNA265	158	23	55940	16015	152	24	6330	5761
ROBSINR22	52	0	1429	195	7	3	24	85
RYAN ST3	50	0	2238	241	4	2	30	5
RYAN STA	37	0	961	168	2	2	10	0
SCHLERK A6	72	2	2618	348	10	3	234	52
SCHWZERG164	14	0	227	58	0	0	0	0
SCHWZERSG1	722	0	32342	6809	0	0	0	0
SCHWZERSG2	106	2	5489	781	2	2	25	0
SEMCO CLINGER	143	10	4128	1228	15	10	262	130
SKRSKYS55	422	0	31572	7358	238	73	1552	687
SKRSKYS58	1037	0	45392	6266	363	86	2195	1181

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GENERAL AVIATION ANNUAL HOURS FLOWN  
BY WEATHER AND LIGHT CONDITIONS  
BY SDR MANUFACTURER/MODEL GROUP  
1982

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MANUFACTURER/ MODEL GROUP	DAY				NIGHT			
	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR	NUMBER ACTIVE AIRCRAFT	STD ERROR	HOURS FLOWN	STD ERROR
SMITH 600	1528	0	85112	12022	818	185	6076	8992
SNIAS 350	30	0	1286	161	2	2	58	82
STNSON10	85	0	6504	1041	32	8	541	197
STNSONL5	8	0	180	10	0	0	0	0
STNSONV77	37	0	411	0	0	0	0	0
STOLAMRC3	11	0	110	14	1	1	0	11
TCRAFTA	68	3	16806	2102	2	3	161	0
TOTALS	208901	245	31117478	630202	121880	1691	5339465	214098

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 1 OF 10

AIRCRAFT TYPE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT			ILS RECEIVING EQUIPMENT					
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS	
FIXED WING													
FIXED WING - PISTON													
1 ENG: 1-3 SEATS													
	ESTIMATED POPULATION	39147	16126	8860	28370	22847	2831	59243	14256	7437	5208	36	
	% STANDARD ERROR	A	A	A	A	A	B	A	A	A	B	D	
ESTIMATED % OF TYPE	47.7	19.6	10.8	34.6	27.8	3.4	72.2	17.4	9.1	6.3	0.0	81.2	
1 ENG: 4+ SEATS													
	ESTIMATED POPULATION	61929	61339	81354	3992	99188	44111	18820	85148	80577	70254	572	
	% STANDARD ERROR	A	A	A	B	A	A	A	A	A	A	D	
ESTIMATED % OF TYPE	52.5	52.0	68.9	3.4	84.1	37.4	15.9	72.2	68.3	59.5	0.5	24.6	
1 ENGINE: TOTAL													
	ESTIMATED POPULATION	101076	77464	90214	32362	122035	46943	78063	99404	88014	75462	608	
	% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	D	
ESTIMATED % OF TYPE	50.5	38.7	45.1	16.2	61.0	23.5	39.0	49.7	44.0	37.7	0.3	47.8	
2 ENG: 1-6 SEATS													
	ESTIMATED POPULATION	6920	12610	16167	500	17679	14559	790	17918	17745	17144	109	
	% STANDARD ERROR	A	A	A	D	A	A	C	A	A	A	D	
ESTIMATED % OF TYPE	37.5	68.3	87.5	2.7	95.7	78.8	4.3	97.0	96.1	92.8	0.6	2.2	
2 ENG: 7+ SEATS													
	ESTIMATED POPULATION	3352	7177	8545	316	9260	8267	801	9402	9082	9289	107	
	% STANDARD ERROR	A	A	A	C	A	A	B	A	A	A	D	
ESTIMATED % OF TYPE	33.3	71.3	84.9	3.1	92.0	82.2	8.0	93.5	90.3	92.3	1.1	6.4	

\*\*\*\*\*

	STANDARD ERROR	CODE
GREATER THAN	-----	---
LESS THAN	-----	---
OR	-----	---
EQUAL TO	-----	---
0 %	10 %	A
10 %	20 %	B
20 %	30 %	C
30 %		D

\*\*\*\*\*





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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 3 OF 10

AIRCRAFT TYPE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
2 ENGINE: TOTAL												
ESTIMATED POPULATION	898	4705	4643	2	5128	5040	4	5039	5039	4982	128	93
% STANDARD ERROR	B	A	A	D	A	A	D	A	A	A	D	D
ESTIMATED % OF TYPE	17.5	91.7	90.4	0.0	99.9	98.2	0.1	98.2	98.2	96.7	2.5	1.8
TURBOPROP: OTHER												
ESTIMATED POPULATION	41	44	69	120	69	61	136	72	66	82	0	133
% STANDARD ERROR	D	D	D	C	D	D	C	D	D	D	A	C
ESTIMATED % OF TYPE	19.8	21.4	33.8	58.8	33.5	29.8	68.5	35.2	32.1	30.5	0.0	84.8
TURBOPROP: TOTAL												
ESTIMATED POPULATION	938	4749	4712	122	5197	5101	140	5111	5105	5025	126	226
% STANDARD ERROR	B	A	A	C	A	A	C	A	A	A	D	C
ESTIMATED % OF TYPE	17.6	89.0	88.3	2.3	97.4	95.6	2.6	95.8	95.6	94.1	2.4	4.2
FIXED WING-TURBOJET												
2 ENGINE TURBOJET												
ESTIMATED POPULATION	589	3407	3300	0	3475	3428	0	3475	3475	3346	132	0
% STANDARD ERROR	C	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF TYPE	17.0	98.0	95.0	0.0	100.0	98.6	0.0	100.0	100.0	98.3	3.8	0.0
TURBOJET: OTHER												
ESTIMATED POPULATION	68	806	783	29	852	841	27	859	857	815	76	30
% STANDARD ERROR	D	A	A	D	A	A	D	A	A	A	D	D
ESTIMATED % OF TYPE	7.6	90.7	88.1	3.2	97.0	94.6	3.0	96.6	96.4	91.7	8.6	3.4

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*	STANDARD ERROR	*	CODE	*
*	-----	*	---	*
*	GREATER	*	LESS THAN	*
*	THAN	*	OR	*
*	-----	*	EQUAL TO	*
*	0 %	*	10 %	*
*	10 %	*	20 %	*
*	20 %	*	30 %	*
*	30 %	*		*

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 4 OF 10

AIRCRAFT TYPE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4098 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
TURBOJET: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	657 C	4214 A	4084 A	29 D	4337 A	4268 A	27 D	4334 A	4332 A	4161 A	208 D	30 D
	15.1	96.6	93.6	0.7	99.4	97.8	0.6	99.3	99.3	95.3	4.8	0.7
FIXED WING: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	113105 A	106349 A	123918 A	33380 A	158777 A	79282 A	79893 A	136375 A	124474 A	111281 A	1163 C	97121 A
	47.4	44.6	51.9	14.0	66.5	33.2	33.5	57.1	52.2	46.6	0.5	40.7
ROTORCRAFT												
PISTON ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	1555 B	985 B	306 D	2858 A	987 B	136 D	4292 A	209 D	41 D	39 D	0 A	5065 A
	29.5	18.7	5.8	54.1	18.7	2.6	81.3	4.0	0.8	0.7	0.0	95.9
TURBINE ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	954 B	3315 A	1731 B	236 D	3416 A	1160 B	1014 B	1793 B	1015 B	996 B	3 D	2632 A
	21.5	74.8	39.0	5.3	77.1	26.2	22.9	40.5	22.9	22.5	0.1	59.4
ROTORCRAFT: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	2509 B	4300 A	2036 B	3094 A	4402 A	1296 B	5307 A	2002 B	1056 B	1035 B	3 D	7696 A
	25.8	44.3	21.0	31.9	45.3	13.3	54.6	20.6	10.9	10.7	0.0	79.3

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* * * * *	STANDARD ERROR	* * * * *	CODE	* * * * *
* * * * *	-----	* * * * *	----	* * * * *
* * * * *	GREATER	* * * * *	LESS THAN	* * * * *
* * * * *	THAN	* * * * *	OR	* * * * *
* * * * *	-----	* * * * *	EQUAL TO	* * * * *
* * * * *	0 %	* * * * *	10 %	* * * * *
* * * * *	10 %	* * * * *	20 %	* * * * *
* * * * *	20 %	* * * * *	30 %	* * * * *
* * * * *	30 %	* * * * *		* * * * *
* * * * *		* * * * *	D	* * * * *

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 5 OF 10

AIRCRAFT TYPE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
OTHER	2337	518	108	4163	204	81	6781	12	55	2	0	6920
	% STANDARD ERROR ESTIMATED % OF TYPE	B 33.5 7.4	C 1.6	A 59.6	D 2.9	D 1.2	A 97.1	D 0.2	D 0.8	D 0.0	A 0.0	A 99.1
TOTAL	117951	111167	126063	40637	163384	80658	91980	138389	125585	112317	1166	111737
	% STANDARD ERROR ESTIMATED % OF POP	A 46.2	A 43.5	A 15.9	A 64.0	A 31.6	A 36.0	A 54.2	A 49.2	A 44.0	C 0.5	A 43.8

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*	*	STANDARD ERROR	*	CODE	*	*	*	*	*	*	*	*
*	*	-----	*	----	*	*	*	*	*	*	*	*
*	*	GREATER	*	LESS THAN	*	*	*	*	*	*	*	*
*	*	THAN	*	OR	*	*	*	*	*	*	*	*
*	*	-----	*	EQUAL TO	*	*	*	*	*	*	*	*
*	*	0 %	*	10 %	*	*	*	*	*	*	*	*
*	*	10 %	*	20 %	*	*	*	*	*	*	*	*
*	*	20 %	*	30 %	*	*	*	*	*	*	*	*
*	*	30 %	*		*	*	*	*	*	*	*	*
*	*		*		*	*	*	*	*	*	*	*
*	*		*		*	*	*	*	*	*	*	*
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

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## GENERAL AVIATION AVIONICS EQUIPMENT

BY

AIRCRAFT TYPE

1982

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AIRCRAFT TYPE		NAVIGATION EQUIPMENT											FLTMGT COMPTR	NO NAVEQ
		VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT				
FIXED WING														
FIXED WING - PISTON														
1 ENG: 1-3 SEATS	ESTIMATED POPULATION	30286	19267	8578	8754	1356	426	144	96	32	98	33278		
	% STANDARD ERROR	36.9	23.5	10.4	8.2	1.7	0.5	0.2	0.1	0.0	0.1	40.5		
1 ENG: 4+ SEATS	ESTIMATED POPULATION	47951	71482	86861	82759	42571	10470	580	5097	2488	741	4517		
	% STANDARD ERROR	40.6	60.6	73.6	70.1	36.1	8.9	0.5	4.3	2.1	0.6	3.8		
1 ENGINE: TOTAL	ESTIMATED POPULATION	78237	90748	95439	89513	43927	10896	724	5193	2520	839	37795		
	% STANDARD ERROR	39.1	45.4	47.7	44.7	22.0	5.4	0.4	2.6	1.3	0.4	18.9		
2 ENG: 1-6 SEATS	ESTIMATED POPULATION	4377	14782	17168	17599	16021	6111	282	4598	3609	787	277		
	% STANDARD ERROR	23.7	80.0	93.0	95.3	86.7	33.1	1.5	24.9	19.5	4.3	1.5		
2 ENG: 7+ SEATS	ESTIMATED POPULATION	2168	7867	8896	9170	8619	4549	236	4124	3049	404	370		
	% STANDARD ERROR	21.6	78.2	88.4	91.1	85.7	45.2	2.3	41.0	30.3	4.0	3.7		

STANDARD ERROR	LESS THAN OR EQUAL TO	GREATER THAN	CODE
0 %	10 %		A
10 %	20 %		B
20 %	30 %		C
30 %			D

TABLE 2 - 15

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 7 OF 10

AIRCRAFT TYPE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
2 ENGINE: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	6545	22649	26064	26770	24640	10660	519	8722	6658	1191	647
	A	A	A	A	A	A	C	A	A	C	C
	22.9	79.4	91.4	93.8	86.4	37.4	1.8	30.6	23.3	4.2	2.3
PISTON: OTHER ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	128	164	211	196	183	22	9	10	15	5	58
	C	B	B	B	B	D	D	D	D	D	D
	37.4	48.0	62.0	57.4	53.7	6.4	2.5	3.1	4.5	1.6	17.1
PISTON: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	84910	113561	121714	116478	68750	21578	1251	13926	9194	2035	38500
	A	A	A	A	A	A	C	A	A	B	A
	37.1	49.6	53.2	50.9	30.0	9.4	0.5	6.1	4.0	0.9	16.8
FIXED WING-TURBOPROP											
2 ENG: 1-12 SEATS ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	832	3922	4382	4486	4481	3278	529	3877	3888	659	4
	B	A	A	A	A	A	C	A	A	C	D
	18.5	87.3	97.6	99.9	99.8	73.0	11.8	86.4	86.6	14.7	0.1
2 ENG: 13+ SEATS ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	144	546	640	642	620	135	211	402	458	64	0
	D	A	A	A	A	D	C	B	B	D	A
	22.3	85.0	99.6	99.8	96.5	21.0	32.8	62.5	71.2	10.0	0.0

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*	STANDARD ERROR	*	CODE	*
*	-----	*	----	*
*	GREATER	*	LESS THAN	*
*	THAN	*	OR	*
*	-----	*	EQUAL TO	*
*	-----	*	-----	*
*	0 %	*	10 %	*
*		*		*
*	10 %	*	20 %	*
*		*		*
*	20 %	*	30 %	*
*		*		*
*	30 %	*		*
*		*		*
*		*		*

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**TABLE 2 - 15**  
**GENERAL AVIATION AVIONICS EQUIPMENT**  
**BY**  
**AIRCRAFT TYPE**  
**1982**

**PAGE 8 OF 10**

AIRCRAFT TYPE	NAVIGATION EQUIPMENT										NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	
2 ENGINE: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	975	4468	5022	5128	5101	3413	740	4279	4348	723	4
	B	A	A	A	A	A	C	A	A	C	D
	19.0	87.0	97.8	99.9	99.4	66.5	14.4	83.4	84.7	14.1	0.1
TURBOPROP: OTHER ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	26	52	63	73	66	4	15	34	29	0	127
	D	D	D	D	D	D	D	D	D	A	C
	12.6	25.6	30.9	35.8	32.1	1.8	7.3	16.8	14.1	0.0	61.8
TURBOPROP: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	1001	4521	5085	5202	5167	3417	755	4313	4375	723	130
	B	A	A	A	A	A	B	A	A	C	C
	18.8	84.7	95.3	97.4	96.8	64.0	14.1	80.8	82.0	13.5	2.4
FIXED WING-TURBOJET											
2 ENGINE TURBOJET ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	584	3226	3226	3475	3401	1755	1728	3375	3201	888	0
	C	A	A	A	A	B	B	A	A	B	A
	16.8	92.8	92.8	100.0	97.9	50.5	49.7	97.1	92.1	25.6	0.0
TURBOJET: OTHER ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	152	723	847	803	805	376	782	717	679	163	27
	D	A	A	A	A	C	A	B	B	D	D
	17.1	81.4	95.3	90.3	90.6	42.3	88.0	80.6	76.4	18.3	3.0

STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN OR EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

TABLE 2 - 15

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 9 OF 10

AIRCRAFT TYPE	NAVIGATION EQUIPMENT										NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	
TURBOJET: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	736	3950	4073	4278	4206	2131	2510	4092	3880	1051	27
	16.9	A 90.5	A 93.3	A 98.0	A 98.4	B 48.8	A 57.5	A 93.8	A 88.9	B 24.1	D 0.6
FIXED WING: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	86647	122032	130873	125958	78122	27127	4517	22331	17449	3809	38658
	36.3	A 51.1	A 54.8	A 52.8	A 32.7	A 11.4	A 1.9	A 9.4	A 7.3	B 1.6	A 16.2
ROTORCRAFT											
PISTON ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	293	212	6	227	6	9	2	0	5	10	4667
	5.5	D 4.0	D 0.1	D 4.3	D 0.1	D 0.2	D 0.0	A 0.0	D 0.1	D 0.2	A 88.4
TURBINE ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	727	2361	974	2643	1299	1239	352	314	560	185	677
	16.4	C 53.3	B 22.0	A 59.6	B 29.3	B 28.0	D 7.9	D 7.1	C 12.6	D 4.2	C 15.3
ROTORCRAFT: TOTAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF TYPE	1020	2573	980	2870	1305	1248	354	314	565	195	5343
	10.5	B 26.5	B 10.1	A 29.6	B 13.4	B 12.9	D 3.6	D 3.2	C 5.8	D 2.0	A 55.0

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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TABLE 2 - 15

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
AIRCRAFT TYPE  
1982

PAGE 10 OF 10

AIRCRAFT TYPE	NAVIGATION EQUIPMENT										FLTMGT COMPTR	NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT			
OTHER												
ESTIMATED POPULATION	81	74	54	2	10	0	0	22	4	0	6821	
% STANDARD ERROR	D	D	D	D	D	A	A	D	D	A	A	
ESTIMATED % OF TYPE	1.2	1.1	0.8	0.0	0.1	0.0	0.0	0.3	0.1	0.0	97.6	
TOTAL												
ESTIMATED POPULATION	87749	124679	131908	128829	79437	28375	4871	22668	18018	4004	50822	
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	B	A	
ESTIMATED % OF POP	34.4	48.8	51.7	50.4	31.1	11.1	1.9	8.9	7.1	1.6	19.9	

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

STANDARD ERROR		CODE	
GREATER THAN	LESS THAN OR EQUAL TO	-----	
		-----	
0 %	10 %	A	
10 %	20 %	B	
20 %	30 %	C	
30 %		D	



TABLE 2 - 16

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 1 OF 22

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
ALABAMA												
ESTIMATED POPULATION	1427	1454	1480	737	2203	962	1344	1882	1735	1388	0	1590
% STANDARD ERROR	C	C	C	C	B	C	C	B	B	C	A	C
ESTIMATED % OF STATE	40.1	40.9	41.8	20.7	61.9	27.0	37.8	52.9	48.8	39.0	0.0	44.7
ALASKA												
ESTIMATED POPULATION	5178	2013	1523	1021	1691	470	6464	1561	1311	1009	102	6471
% STANDARD ERROR	B	B	B	C	B	D	A	B	C	C	D	A
ESTIMATED % OF STATE	65.8	25.6	19.3	13.0	21.5	6.0	82.1	19.8	16.6	12.8	1.3	82.2
ARIZONA												
ESTIMATED POPULATION	2655	2450	2531	1109	3975	1816	2144	3097	2868	2458	0	2883
% STANDARD ERROR	B	B	B	C	B	B	B	B	B	B	A	B
ESTIMATED % OF STATE	43.4	40.1	41.4	18.1	65.0	29.7	35.1	50.7	46.9	40.2	0.0	47.2
ARKANSAS												
ESTIMATED POPULATION	1310	1319	1454	783	1854	782	1334	1510	1317	1233	52	1620
% STANDARD ERROR	C	C	C	C	B	C	C	C	C	C	D	B
ESTIMATED % OF STATE	40.5	40.8	45.0	24.2	57.3	24.2	41.2	48.7	40.7	38.1	1.6	50.1
CALIFORNIA												
ESTIMATED POPULATION	15801	16140	18076	3459	23517	11683	9995	18990	18311	15926	131	13256
% STANDARD ERROR	A	A	A	B	A	A	A	A	A	A	D	A
ESTIMATED % OF STATE	47.3	48.3	54.1	10.4	70.4	35.0	29.9	58.8	54.8	47.7	0.4	39.7

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN OR EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

\*\*\*\*\*

TABLE 2 - 18

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 2 OF 22

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	409B CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
COLORADO	2278	3210	3215	979	4297	2193	1544	3309	3012	2858	2	2503
	B 39.8	B 56.1	B 56.2	C 17.1	B 75.1	B 38.3	B 27.0	B 57.8	B 52.8	B 49.9	D 0.0	B 43.7
CONNECTICUT	1018	1067	1179	290	1363	804	739	1245	1171	1032	47	804
	C 49.6	C 52.0	C 57.5	D 14.1	C 66.5	C 39.2	C 38.1	C 60.7	C 57.1	C 50.3	D 2.3	C 39.2
DELAWARE	236	446	427	71	490	339	203	464	429	420	0	227
	D 34.5	D 65.1	D 62.4	D 10.3	D 71.6	D 49.5	D 29.6	D 67.7	D 62.7	D 61.4	A 0.0	D 33.2
DC	7	152	105	0	154	148	6	144	150	144	0	10
	D 4.8	D 97.8	D 67.5	A 0.0	D 98.5	D 94.7	D 4.1	D 92.6	D 96.0	D 92.6	A 0.0	D 6.6
FLORIDA	6720	8280	9080	1379	10794	6198	3968	9371	8768	8232	40	5003
	A 45.4	A 56.0	A 61.4	B 9.3	A 73.0	A 41.9	B 26.8	A 63.4	A 59.3	A 55.7	D 0.3	B 33.8

STANDARD ERROR				CODE
GREATER THAN				---
LESS THAN OR				---
EQUAL TO				---
0 %	10 %			A
10 %	20 %			B
20 %	30 %			C
30 %				D



TABLE 2 - 16

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

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STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT			ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4098 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS ILS
IOWA	ESTIMATED POPULATION	1370	1952	1909	763	2470	1134	2329	1983	1890	6
	% STANDARD ERROR	C	B	B	C	B	C	B	B	B	D
KANSAS	ESTIMATED % OF STATE	35.4	50.4	49.3	19.7	63.8	29.3	60.1	51.2	48.8	0.2
											41.4
KENTUCKY	ESTIMATED POPULATION	1552	2073	2144	750	2877	1367	2356	1973	1838	8
	% STANDARD ERROR	B	B	B	C	B	C	B	B	B	D
	ESTIMATED % OF STATE	36.4	48.6	50.3	17.6	67.5	32.1	55.3	46.3	43.1	0.2
											38.6
LOUISIANA	ESTIMATED POPULATION	869	1067	868	134	1197	797	973	948	843	0
	% STANDARD ERROR	C	C	C	D	C	C	C	C	C	A
	ESTIMATED % OF STATE	37.7	60.0	48.7	7.6	67.3	44.8	54.7	53.3	47.4	0.0
											43.9
MAINE	ESTIMATED POPULATION	1335	1860	1813	1151	2502	1082	2025	1788	1863	0
	% STANDARD ERROR	C	B	B	C	B	C	B	B	B	A
	ESTIMATED % OF STATE	32.6	45.4	39.4	28.1	61.1	26.7	49.5	43.7	40.6	0.0
											51.0
MAINE	ESTIMATED POPULATION	580	403	457	381	438	174	554	330	221	1
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	43.0	29.9	33.8	28.2	32.4	12.9	41.0	24.4	16.4	0.1
											54.2

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN OR EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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TABLE 2 - 16

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 5 OF 22

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
MARYLAND												
	ESTIMATED POPULATION	1190	1420	1711	558	2068	1066	891	1433	1479	0	1206
% STANDARD ERROR	C	C	C	B	D	B	C	C	C	C	A	C
ESTIMATED % OF STATE	39.9	47.6	57.3	57.3	18.7	69.3	35.7	29.8	48.0	49.6	0.0	40.4
MASSACHUSETTS												
ESTIMATED POPULATION	1551	1580	1864	565	2485	1337	1111	2200	2063	1645	0	1331
% STANDARD ERROR	B	C	B	D	B	C	C	B	B	B	A	C
ESTIMATED % OF STATE	44.6	45.4	53.6	16.2	71.4	38.4	31.9	63.2	59.3	47.2	0.0	38.3
MICHIGAN												
ESTIMATED POPULATION	4191	3572	4141	1335	5031	2159	3563	4841	4254	3602	2	3828
% STANDARD ERROR	B	B	B	C	B	B	B	B	B	B	D	B
ESTIMATED % OF STATE	48.3	41.2	47.7	15.4	58.0	24.9	41.1	53.5	49.0	41.5	0.0	44.1
MINNESOTA												
ESTIMATED POPULATION	3323	1537	2090	1107	3124	1223	2726	2170	1991	1871	45	3679
% STANDARD ERROR	B	C	B	C	B	C	B	B	B	B	D	B
ESTIMATED % OF STATE	56.6	26.2	35.6	18.9	53.2	20.8	46.4	37.0	33.9	31.9	0.8	62.7
MISSISSIPPI												
ESTIMATED POPULATION	768	1110	1132	796	1260	641	1291	1212	1170	907	0	1285
% STANDARD ERROR	C	C	C	C	C	D	C	C	C	C	A	C
ESTIMATED % OF STATE	31.2	45.1	46.0	32.3	51.2	26.0	52.4	49.2	47.5	36.8	0.0	52.2

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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TABLE 2 - 16

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 6 OF 22

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
MISSOURI	ESTIMATED POPULATION	2539	1901	2637	1255	3199	1331	2202	2456	2107	3	2779
	% STANDARD ERROR	B	B	B	C	B	C	B	B	B	D	B
	ESTIMATED % OF STATE	47.8	35.8	49.6	23.6	60.2	25.1	41.4	46.2	39.7	0.0	52.3
MONTANA	ESTIMATED POPULATION	1039	906	705	597	1360	297	1158	886	636	104	1548
	% STANDARD ERROR	C	C	C	D	C	D	C	C	D	D	C
	ESTIMATED % OF STATE	42.3	36.9	28.7	24.3	55.4	12.1	47.2	36.1	25.9	4.2	63.1
NEBRASKA	ESTIMATED POPULATION	845	769	758	815	1126	476	1223	658	588	0	1471
	% STANDARD ERROR	C	C	C	C	C	D	C	D	D	A	C
	ESTIMATED % OF STATE	36.5	33.2	32.7	35.1	48.6	20.5	52.8	28.4	25.4	0.0	63.4
NEVADA	ESTIMATED POPULATION	897	1073	1305	503	1704	1166	648	1352	1218	0	978
	% STANDARD ERROR	C	C	C	D	B	C	D	C	C	A	C
	ESTIMATED % OF STATE	37.3	44.6	54.2	20.8	70.8	48.4	26.9	54.2	50.6	0.0	40.6
NEW HAMPSHIRE	ESTIMATED POPULATION	502	657	561	300	898	649	556	687	661	4	653
	% STANDARD ERROR	D	D	D	D	C	D	D	D	D	D	C
	ESTIMATED % OF STATE	33.9	44.3	37.8	20.2	60.4	43.7	37.5	46.3	44.6	0.3	44.1

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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TABLE 2 - 16

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 7 OF 22

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
NEW JERSEY												
	2234	2321	2448	663	2969	1807	1855	2679	2687	2292	5	1967
	B	B	B	C	B	B	B	B	B	B	D	B
NEW MEXICO												
	46.3	48.1	50.7	13.7	61.5	37.4	38.4	55.5	55.7	47.5	0.1	40.8
NEW YORK												
	1121	1092	1426	456	1886	1097	700	1587	1380	1219	1	907
	C	C	C	D	B	C	C	C	C	C	D	C
NORTH CAROLINA												
	44.8	43.6	57.0	18.2	75.3	43.8	28.0	63.4	55.1	48.7	0.0	36.2
NORTH DAKOTA												
	3496	3244	4137	1175	5349	2986	2236	4636	4179	3842	46	2758
	B	B	B	B	B	B	B	B	B	B	D	B
NORTH DAKOTA												
	45.8	42.5	54.2	15.4	70.1	39.1	29.3	60.8	54.8	50.4	0.6	36.2
NORTH DAKOTA												
	1857	2086	2226	598	3273	1447	1022	2820	2296	2085	27	1475
	B	B	B	D	B	C	C	B	B	B	D	B
NORTH DAKOTA												
	41.3	46.4	49.5	13.3	72.8	32.2	22.8	62.8	51.1	46.4	0.6	32.8
NORTH DAKOTA												
	733	635	816	607	1027	492	867	900	870	656	0	924
	C	D	C	D	C	D	C	C	C	D	A	C
NORTH DAKOTA												
	38.1	33.1	42.5	31.6	53.4	25.6	45.1	46.8	45.3	34.2	0.0	48.1

*****				*****			
STANDARD ERROR		LESS THAN		CODE			
GREATER THAN		OR					
EQUAL TO							
0 %		10 %		A			
10 %		20 %		B			
20 %		30 %		C			
30 %				D			
*****				*****			

TABLE 2 - 16

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

PAGE 8 OF 22

STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
OHIO	ESTIMATED POPULATION	4727	3789	4821	1677	6521	2615	3003	5104	4123	1	3927
	% STANDARD ERROR	B	B	B	B	A	B	B	B	B	D	B
OKLAHOMA	ESTIMATED POPULATION	50.0	40.1	51.0	17.7	68.9	27.6	31.7	54.0	43.6	0.0	41.5
	% STANDARD ERROR	B	B	B	B	B	B	B	B	B	B	B
OREGON	ESTIMATED POPULATION	3358	2484	3229	702	4249	2467	1757	2970	2780	51	2317
	% STANDARD ERROR	B	B	B	C	B	B	B	B	B	D	B
PENNSYLVANIA	ESTIMATED POPULATION	54.5	36.6	49.3	12.6	68.8	30.9	29.7	46.9	41.8	0.0	46.5
	% STANDARD ERROR	B	B	B	B	B	B	B	B	B	A	B
RHODE ISLAND	ESTIMATED POPULATION	3654	3008	3870	1250	4270	2301	3271	3752	3243	32	3105
	% STANDARD ERROR	B	B	B	C	B	B	B	B	B	D	B
	ESTIMATED POPULATION	48.1	39.6	50.9	16.4	56.2	30.3	43.0	49.4	42.7	0.4	40.9
	% STANDARD ERROR	B	B	B	B	B	B	B	B	B	B	B
	ESTIMATED POPULATION	203	182	155	31	214	129	126	173	154	6	149
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D
	ESTIMATED POPULATION	62.9	56.3	48.1	9.6	66.2	40.0	39.1	53.8	47.8	1.8	46.2
	% STANDARD ERROR	B	B	B	B	B	B	B	B	B	B	B

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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GENERAL AVIATION AVIONICS EQUIPMENT  
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1982

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STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
SOUTH CAROLINA	ESTIMATED POPULATION											
	% STANDARD ERROR											
SOUTH DAKOTA	ESTIMATED POPULATION											
	% STANDARD ERROR											
TENNESSEE	ESTIMATED POPULATION											
	% STANDARD ERROR											
TEXAS	ESTIMATED POPULATION											
	% STANDARD ERROR											
UTAH	ESTIMATED POPULATION											
	% STANDARD ERROR											

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*	STANDARD ERROR	CODE	*
*	-----	---	*
*	GREATER	LESS THAN	*
*	THAN	OR	*
*	-----	EQUAL TO	*
*	0 %	10 %	*
*	10 %	20 %	*
*	20 %	30 %	*
*	30 %		*

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

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STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
<b>VERMONT</b>												
ESTIMATED POPULATION	288	214	194	99	372	175	211	254	223	210	0	327
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	A	D
ESTIMATED % OF STATE	49.3	36.7	33.1	17.0	63.7	29.9	36.2	43.5	38.2	36.0	0.0	56.0
<b>VIRGINIA</b>												
ESTIMATED POPULATION	1282	1269	1134	610	1726	872	1144	1435	1333	1170	53	1427
% STANDARD ERROR	C	C	C	D	B	C	C	C	C	C	D	C
ESTIMATED % OF STATE	43.4	42.9	38.4	20.6	58.4	29.5	38.7	48.6	45.1	39.6	1.8	48.3
<b>WASHINGTON</b>												
ESTIMATED POPULATION	3447	2797	2646	1252	4142	1530	2944	3331	2621	2529	0	3694
% STANDARD ERROR	B	B	B	C	B	C	B	B	B	B	A	B
ESTIMATED % OF STATE	49.6	40.3	38.1	18.0	59.7	22.0	42.4	48.0	37.8	36.4	0.0	53.2
<b>WEST VIRGINIA</b>												
ESTIMATED POPULATION	762	523	946	86	1054	455	295	1004	910	663	0	249
% STANDARD ERROR	D	D	C	D	C	D	D	C	C	D	A	D
ESTIMATED % OF STATE	57.1	39.2	70.9	6.4	79.0	34.1	22.1	75.3	68.2	49.7	0.0	18.7
<b>WISCONSIN</b>												
ESTIMATED POPULATION	2507	1761	2080	1380	2631	1501	2908	2406	2218	1933	0	2860
% STANDARD ERROR	B	B	B	C	B	C	B	B	B	B	A	B
ESTIMATED % OF STATE	45.3	31.8	37.6	24.9	47.6	27.1	52.6	43.5	40.1	35.0	0.0	51.7

*****												
* STANDARD ERROR				* CODE				*****				
* GREATER				* LESS THAN				* ---				
* THAN				* OR				* ---				
* EQUAL TO				* ---				* ---				
* 0 %				* 10 %				* A				
* 10 %				* 20 %				* B				
* 20 %				* 30 %				* C				
* 30 %				* ---				* D				
*****												

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GENERAL AVIATION AVIONICS EQUIPMENT  
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1982

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STATE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKR BEC	GLIDE SLOPE	MLS	NO ILS
WYOMING	622	726	502	100	939	439	439	637	806	604	19	558
	C	C	D	D	C	D	D	D	C	D	D	D
	38.6	45.0	31.1	6.2	58.2	27.2	27.2	39.5	50.0	37.4	1.2	34.8
PUERTO RICO	150	190	148	7	212	16	69	194	166	167	0	85
	D	D	D	D	D	D	D	D	D	D	A	D
	51.3	65.2	50.6	2.5	72.6	5.3	23.7	66.3	56.8	57.2	0.0	29.2
OTHER U.S. TERRITORIES	23	60	55	1	65	21	12	49	46	46	3	28
	D	D	D	D	D	D	D	D	D	D	D	D
	28.0	74.9	68.9	1.3	81.1	26.6	15.1	61.1	57.8	57.8	3.9	35.1
FOREIGN	550	488	794	67	633	209	399	738	667	728	0	291
	D	D	C	D	D	D	D	C	D	C	A	D
	47.4	42.0	68.4	5.8	54.5	18.0	34.3	63.6	57.4	62.6	0.0	25.1
TOTAL	117951	111167	126063	40637	163384	80658	91980	138389	125585	112317	1166	111737
	A	A	A	A	A	A	A	A	A	A	C	A
	48.2	43.5	49.4	15.9	64.0	31.6	36.0	54.2	49.2	44.0	0.5	43.8

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*	*	*	*	*	*	*	*	*	*	*	*	*
*	STANDARD ERROR	*	CODE	*	*	*	*	*	*	*	*	*
*	-----	*	-----	*	*	*	*	*	*	*	*	*
*	GREATER	*	LESS THAN	*	*	*	*	*	*	*	*	*
*	THAN	*	OR	*	*	*	*	*	*	*	*	*
*	-----	*	EQUAL TO	*	*	*	*	*	*	*	*	*
*	-----	*	-----	*	*	*	*	*	*	*	*	*
*	0 %	*	10 %	*	*	A	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*
*	10 %	*	20 %	*	*	B	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*
*	20 %	*	30 %	*	*	C	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*
*	30 %	*	*	*	*	D	*	*	*	*	*	*
*	*	*	*	*	*	*	*	*	*	*	*	*

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**GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982**

**PAGE 12 OF 22**

STATE		NAVIGATION EQUIPMENT								
VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT CMPTR	NO NAVEQ
<b>ALABAMA</b>										
ESTIMATED POPULATION	934	1724	1733	1787	946	232	71	283	203	108
% STANDARD ERROR	C	B	B	B	C	D	D	D	D	C
ESTIMATED % OF STATE	28.3	48.4	48.7	49.6	28.6	6.5	2.0	7.9	5.7	3.0
<b>ALASKA</b>										
ESTIMATED POPULATION	3282	2446	1217	3259	630	45	62	77	245	0
% STANDARD ERROR	B	B	C	B	C	D	D	D	D	A
ESTIMATED % OF STATE	41.7	31.1	15.5	41.4	8.0	0.6	0.8	1.0	3.1	0.0
<b>ARIZONA</b>										
ESTIMATED POPULATION	2335	2876	2984	2872	1913	497	190	397	423	38
% STANDARD ERROR	B	B	B	B	B	D	D	D	D	C
ESTIMATED % OF STATE	38.2	47.0	48.8	47.0	31.3	8.1	3.1	6.5	6.9	0.6
<b>ARKANSAS</b>										
ESTIMATED POPULATION	1109	1252	1624	1535	947	474	52	490	274	171
% STANDARD ERROR	C	C	C	C	C	D	D	D	D	C
ESTIMATED % OF STATE	34.3	38.7	50.2	47.4	29.3	14.7	1.6	15.2	8.5	5.3
<b>CALIFORNIA</b>										
ESTIMATED POPULATION	12166	17110	18720	16585	9859	2404	292	2244	1644	356
% STANDARD ERROR	A	A	A	A	A	B	D	B	B	D
ESTIMATED % OF STATE	36.4	51.2	56.0	49.6	29.5	7.2	0.9	6.7	4.9	1.1

STANDARD ERROR	LESS THAN OR EQUAL TO	GREATER THAN	CODE
0 %	10 %		A
10 %	20 %		B
20 %	30 %		C
30 %			D

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GENERAL AVIATION AVIONICS EQUIPMENT  
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1982

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STATE	NAVIGATION EQUIPMENT										FLTNGT COMPTN	NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT			
COLORADO												
ESTIMATED POPULATION	1444	3251	3190	3059	1969	960	20	686	300	69	1140	
% STANDARD ERROR	B	B	B	B	B	C	D	C	D	D	C	
ESTIMATED % OF STATE	25.2	56.8	55.8	53.5	34.4	16.8	0.4	12.0	5.2	1.2	18.9	
CONNECTICUT												
ESTIMATED POPULATION	844	1242	1130	1111	731	228	118	355	290	95	417	
% STANDARD ERROR	D	C	C	C	C	D	D	D	D	D	D	
ESTIMATED % OF STATE	31.4	60.6	55.1	54.2	35.6	11.0	5.7	17.3	14.1	4.6	20.3	
DELAWARE												
ESTIMATED POPULATION	185	412	423	367	331	183	43	82	84	39	102	
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D	
ESTIMATED % OF STATE	27.0	60.1	61.8	53.5	48.4	26.7	6.3	12.0	12.3	5.7	14.9	
DC												
ESTIMATED POPULATION	2	149	148	149	143	104	27	103	27	0	9	
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	A	D	
ESTIMATED % OF STATE	1.4	95.3	94.7	95.4	91.9	68.9	17.2	66.2	17.2	0.0	5.9	
FLORIDA												
ESTIMATED POPULATION	4720	9088	9397	8919	5163	2366	517	2068	1185	373	1817	
% STANDARD ERROR	B	A	A	A	B	B	D	B	C	D	B	
ESTIMATED % OF STATE	31.9	61.5	63.5	60.3	34.9	16.0	3.5	14.0	8.0	2.5	12.3	

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN OR EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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GENERAL AVIATION AVIONICS EQUIPMENT  
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STATE	NAVIGATION EQUIPMENT										FLTMGT COMPTR	NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT			
GEORGIA	ESTIMATED POPULATION	2042	2417	2737	2954	1573	928	67	436	351	89	1075
	% STANDARD ERROR	B	B	B	B	B	C	D	D	D	D	C
	ESTIMATED % OF STATE	36.8	43.5	49.3	53.2	28.3	18.7	1.2	7.8	6.3	1.6	19.3
HAWAII	ESTIMATED POPULATION	137	298	251	255	114	17	28	27	24	16	115
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	25.4	55.0	46.5	47.3	21.1	3.2	5.1	4.9	4.5	3.0	21.4
IDAHO	ESTIMATED POPULATION	1194	855	919	1320	415	154	68	90	151	12	572
	% STANDARD ERROR	C	C	C	C	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	45.4	32.6	35.0	50.2	15.8	5.9	2.6	3.4	5.8	0.4	21.8
ILLINOIS	ESTIMATED POPULATION	3238	4477	5164	4789	3092	922	189	822	959	215	1940
	% STANDARD ERROR	B	B	B	B	B	C	D	C	C	D	B
	ESTIMATED % OF STATE	34.9	48.3	55.7	51.6	33.3	9.9	2.0	8.9	10.3	2.3	20.9
INDIANA	ESTIMATED POPULATION	1332	1753	2023	2039	1291	288	32	174	174	26	998
	% STANDARD ERROR	C	B	B	B	C	D	D	D	D	D	C
	ESTIMATED % OF STATE	32.8	43.2	49.9	50.3	31.8	7.1	0.8	4.3	4.3	0.6	24.6

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN OR EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

\*\*\*\*\*

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GENERAL AVIATION AVIONICS EQUIPMENT  
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STATE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
IOWA	ESTIMATED POPULATION	1373	1830	1936	1998	890	353	8	227	183	2
	% STANDARD ERROR	C	B	B	B	C	D	D	D	D	C
KANSAS	ESTIMATED POPULATION	977	2583	2308	2349	1377	745	7	271	239	2
	% STANDARD ERROR	C	B	B	B	C	D	D	D	D	C
KENTUCKY	ESTIMATED POPULATION	708	882	935	942	649	205	13	184	134	63
	% STANDARD ERROR	D	C	C	C	D	D	D	D	D	D
LOUISIANA	ESTIMATED POPULATION	1014	1683	1809	2219	1478	592	105	484	495	3
	% STANDARD ERROR	C	B	B	B	C	D	D	D	D	C
MAINE	ESTIMATED POPULATION	523	468	476	447	140	88	2	31	59	0
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	35.4	47.2	50.0	51.6	23.0	9.1	0.2	5.9	4.7	0.1
	ESTIMATED % OF STATE	22.9	60.6	54.1	55.1	32.3	17.5	0.2	6.4	5.6	0.0
	ESTIMATED % OF STATE	39.8	49.6	52.6	53.0	36.5	11.5	0.7	9.3	7.5	3.5
	ESTIMATED % OF STATE	24.8	41.1	39.3	54.2	36.1	14.5	2.6	11.3	12.1	0.1
	ESTIMATED % OF STATE	38.7	34.6	35.3	33.1	10.4	6.5	0.1	2.3	4.3	0.0

\*\*\*\*\*

*	STANDARD ERROR	*	CODE	*
*	-----	*	----	*
*	GREATER	*	LESS THAN	*
*	THAN	*	OR	*
*	-----	*	EQUAL TO	*
*	0 %	*	-----	*
*	10 %	*	10 %	*
*	20 %	*	20 %	*
*	30 %	*	30 %	*
*	40 %	*	40 %	*
*	50 %	*	50 %	*
*	60 %	*	60 %	*
*	70 %	*	70 %	*
*	80 %	*	80 %	*
*	90 %	*	90 %	*
*	100 %	*	100 %	*

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GENERAL AVIATION AVIONICS EQUIPMENT  
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STATE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
MARYLAND	794	1663	1810	1617	1084	385	6	278	261	12	615
	C	B	B	C	C	D	D	D	D	D	D
	26.6	55.7	60.6	54.2	36.3	12.9	0.2	9.3	8.7	0.4	20.6
MASSACHUSETTS	1186	2097	1998	1992	979	302	184	100	343	1	700
	C	B	B	B	C	D	D	D	D	D	C
	34.1	60.2	57.4	57.2	28.1	8.7	5.3	2.9	9.8	0.0	20.1
MICHIGAN	2696	4497	4468	3953	2667	1102	5	642	562	166	1891
	B	B	B	B	B	C	D	C	D	D	B
	31.1	51.8	51.5	45.6	30.7	12.7	0.1	7.4	6.5	1.9	19.5
MINNESOTA	2637	2137	2179	2384	1484	482	51	553	437	94	1136
	B	B	B	B	C	D	D	D	D	D	B
	44.9	36.4	37.1	40.3	25.3	8.2	0.9	9.4	7.4	1.6	19.4
MISSISSIPPI	815	1052	1092	1052	790	326	68	255	174	91	866
	C	C	C	C	C	D	D	D	D	D	C
	33.1	42.7	44.3	42.7	32.1	13.3	2.8	10.3	7.1	3.7	35.1

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*	STANDARD ERROR	CODE
*	-----	---
*	GREATER	LESS THAN
*	THAN	OR
*	-----	EQUAL TO
*	0 %	10 %
*	10 %	20 %
*	20 %	30 %
*	30 %	
*		A
*		B
*		C
*		D

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GENERAL AVIATION AVIONICS EQUIPMENT  
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STATE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
MISSOURI	ESTIMATED POPULATION	1982	2404	2700	2323	1427	351	68	314	300	8
	% STANDARD ERROR	B	B	B	B	C	D	D	D	D	D
MONTANA	ESTIMATED % OF STATE	37.3	45.2	50.8	43.7	28.9	6.6	1.3	5.9	5.6	0.1
											23.3
	ESTIMATED POPULATION	999	777	768	841	374	165	0	33	143	82
	% STANDARD ERROR	C	C	C	C	D	D	A	D	D	D
	ESTIMATED % OF STATE	40.7	31.7	31.3	34.3	15.2	6.7	0.0	1.3	5.8	3.4
											30.6
NEBRASKA	ESTIMATED POPULATION	658	835	797	824	479	274	57	187	123	6
	% STANDARD ERROR	D	C	C	C	D	D	D	D	D	D
	ESTIMATED % OF STATE	28.4	36.0	34.4	35.5	20.7	11.8	2.5	8.1	5.3	0.3
											37.8
NEVADA	ESTIMATED POPULATION	822	1053	1295	1248	1081	397	52	281	148	100
	% STANDARD ERROR	C	C	C	C	C	D	D	D	D	D
	ESTIMATED % OF STATE	34.1	43.8	53.8	51.9	44.1	18.5	2.2	11.7	6.2	4.1
											23.1
NEW HAMPSHIRE	ESTIMATED POPULATION	335	777	604	802	646	279	10	10	56	0
	% STANDARD ERROR	D	D	D	C	D	D	D	D	D	A
	ESTIMATED % OF STATE	22.6	52.4	40.8	54.1	43.6	18.8	0.7	0.7	3.8	0.0
											23.4

*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	**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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
1982

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STATE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
NEW JERSEY	1364	2992	2758	2645	1665	836	295	799	493	276	878
	C	B	B	B	B	C	D	C	D	D	C
	28.3	62.0	57.1	54.8	34.5	17.3	6.1	16.6	10.2	5.7	18.2
NEW MEXICO	912	1252	1450	1321	975	462	2	379	296	0	512
	C	C	C	C	C	D	D	D	D	A	D
	36.5	50.0	57.9	52.8	39.0	18.5	0.1	15.1	11.8	0.0	20.5
NEW YORK	2391	3932	4598	4032	2464	928	181	739	461	106	1371
	B	B	B	B	B	C	D	C	D	D	B
	31.3	51.6	60.3	52.9	32.3	12.2	2.4	9.7	6.0	1.4	18.0
NORTH CAROLINA	1581	2109	2441	2255	1576	705	53	613	380	128	827
	C	B	B	B	B	C	D	D	D	D	C
	35.2	46.9	54.3	50.2	35.1	15.7	1.2	13.6	8.5	2.9	18.4
NORTH DAKOTA	613	677	766	769	523	127	3	167	31	53	659
	D	D	D	C	D	D	D	D	D	D	D
	31.9	35.2	39.9	40.0	27.2	6.6	0.2	8.7	1.6	2.7	34.3

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
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STATE	NAVIGATION EQUIPMENT										NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	
OHIO	ESTIMATED POPULATION	3226	4736	4959	5261	3104	1094	372	1079	757	162
	% STANDARD ERROR	B	B	B	B	B	C	D	C	D	B
	ESTIMATED % OF STATE	34.1	50.1	52.4	55.6	32.8	11.6	3.9	11.4	8.0	1.7
OKLAHOMA	ESTIMATED POPULATION	2682	2592	3211	3219	2327	1035	270	874	460	320
	% STANDARD ERROR	B	B	B	B	B	C	D	C	D	C
	ESTIMATED % OF STATE	44.6	43.1	53.4	53.6	38.7	17.2	4.5	14.5	7.7	5.3
OREGON	ESTIMATED POPULATION	2663	2345	2854	2981	2032	540	3	415	414	110
	% STANDARD ERROR	B	B	B	B	B	D	D	D	D	C
	ESTIMATED % OF STATE	44.5	39.2	47.7	49.8	34.0	9.0	0.0	6.9	6.9	1.8
PENNSYLVANIA	ESTIMATED POPULATION	2328	3918	3860	3512	2418	817	138	900	494	6
	% STANDARD ERROR	B	B	B	B	B	C	D	C	D	B
	ESTIMATED % OF STATE	30.6	51.6	50.8	46.2	31.8	10.8	1.8	11.8	6.5	0.1
RHODE ISLAND	ESTIMATED POPULATION	143	170	188	174	116	73	3	73	11	0
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	A
	ESTIMATED % OF STATE	44.4	52.6	58.2	53.9	35.9	22.7	1.0	22.7	3.3	0.0

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	*
OR	*
EQUAL TO	*
---	*
0 %	A
10 %	*
20 %	B
30 %	C
30 %	D

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
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STATE	NAVIGATION EQUIPMENT											
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ	
SOUTH CAROLINA	ESTIMATED POPULATION	812	1201	1194	1080	668	352	4	181	180	22	224
	% STANDARD ERROR	C	C	C	C	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	40.8	60.3	60.0	54.3	33.4	17.7	0.2	9.1	9.1	1.1	11.2
SOUTH DAKOTA	ESTIMATED POPULATION	666	485	480	460	285	67	14	21	20	14	463
	% STANDARD ERROR	C	D	D	D	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	42.0	30.6	30.3	29.0	18.0	4.2	0.9	1.3	1.2	0.9	29.2
TENNESSEE	ESTIMATED POPULATION	849	2068	2156	1998	1451	589	1	314	185	0	313
	% STANDARD ERROR	C	B	B	B	C	D	D	D	D	A	D
	ESTIMATED % OF STATE	26.2	63.8	66.5	61.6	44.8	18.2	0.0	9.7	5.7	0.0	9.7
TEXAS	ESTIMATED POPULATION	7676	11695	13546	12829	8786	3347	656	2726	2885	306	4691
	% STANDARD ERROR	A	A	A	A	A	B	C	B	B	D	B
	ESTIMATED % OF STATE	32.7	49.8	57.7	54.6	37.4	14.3	2.8	11.6	12.3	1.3	20.0
UTAH	ESTIMATED POPULATION	515	759	943	842	407	44	2	74	52	5	70
	% STANDARD ERROR	D	C	C	C	D	D	D	D	D	D	D
	ESTIMATED % OF STATE	38.6	56.9	70.7	63.1	30.5	3.3	0.1	5.5	3.9	0.4	5.2

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*	STANDARD ERROR	*	CODE	*
*	-----	*	---	*
*	GREATER	*	LESS THAN	*
*	THAN	*	OR	*
*	-----	*	EQUAL TO	*
*	0 %	*	10 %	*
*	10 %	*	20 %	*
*	20 %	*	30 %	*
*	30 %	*		*

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
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STATE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
VERMONT	ESTIMATED POPULATION	188	216	199	223	138	61	2	32	38	1
	% STANDARD ERROR	D	D	D	D	D	D	D	D	D	D
VIRGINIA	ESTIMATED % OF STATE	32.2	37.0	34.1	38.1	23.3	10.4	0.3	5.5	6.5	0.2
											32.0
WASHINGTON	ESTIMATED POPULATION	869	1391	1273	1239	691	196	19	115	104	0
	% STANDARD ERROR	C	C	C	C	C	D	D	D	D	A
WEST VIRGINIA	ESTIMATED % OF STATE	29.4	47.1	43.1	41.9	23.4	6.6	0.6	3.9	3.5	0.0
											23.8
WISCONSIN	ESTIMATED POPULATION	2238	3175	2706	2742	1635	533	30	408	258	44
	% STANDARD ERROR	B	B	B	B	B	D	D	D	D	B
WEST VIRGINIA	ESTIMATED % OF STATE	32.2	45.7	39.0	39.5	23.5	7.7	0.4	5.9	3.7	0.6
											28.5
WISCONSIN	ESTIMATED POPULATION	468	780	950	845	636	121	2	76	81	3
	% STANDARD ERROR	D	C	C	C	D	D	D	D	D	D
WISCONSIN	ESTIMATED % OF STATE	35.1	58.5	71.2	63.4	47.7	9.1	0.1	5.7	6.0	0.2
											8.0
WISCONSIN	ESTIMATED POPULATION	2188	2022	2492	2446	1408	581	45	442	328	66
	% STANDARD ERROR	B	B	B	B	C	D	D	D	D	C
WISCONSIN	ESTIMATED % OF STATE	39.6	36.6	45.1	44.2	25.4	10.5	0.8	8.0	5.9	1.2
											24.1

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* STANDARD ERROR	* CODE
* LESS THAN	* ---
* OR	* ---
* EQUAL TO	* ---
* 0 %	* A
* 10 %	* B
* 20 %	* C
* 30 %	* D

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
STATE OF BASED AIRCRAFT  
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STATE	NAVIGATION EQUIPMENT										NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT CMPTR	
WYOMING											
ESTIMATED POPULATION	455	792	702	693	429	183	17	166	103	17	165
% STANDARD ERROR	D	C	C	C	D	D	D	D	D	D	D
ESTIMATED % OF STATE	28.2	49.1	43.6	43.0	26.6	11.4	1.1	10.3	6.4	1.1	10.2
PUERTO RICO											
ESTIMATED POPULATION	145	142	141	215	20	6	1	1	1	0	14
% STANDARD ERROR	D	D	D	D	D	D	D	D	D	A	D
ESTIMATED % OF STATE	49.5	48.5	48.4	73.5	6.8	2.2	0.4	0.4	0.4	0.0	4.9
OTHER U.S. TERRITORIES											
ESTIMATED POPULATION	18	62	55	65	26	3	0	5	3	0	1
% STANDARD ERROR	D	D	D	D	D	D	A	D	D	A	D
ESTIMATED % OF STATE	22.3	76.8	68.9	80.4	32.3	3.8	0.0	6.7	3.8	0.0	1.3
FOREIGN											
ESTIMATED POPULATION	218	732	564	827	336	17	34	98	89	3	77
% STANDARD ERROR	D	C	D	C	D	D	D	D	D	D	D
ESTIMATED % OF STATE	18.7	63.0	48.6	71.2	29.0	1.4	2.9	8.5	7.7	0.3	6.6
TOTAL											
ESTIMATED POPULATION	87749	124679	131906	128829	79437	28375	4871	22668	18018	4004	50822
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	B	A
ESTIMATED % OF POP	34.4	48.8	51.7	50.4	31.1	11.1	1.9	8.9	7.1	1.6	19.9

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
*	*	STANDARD ERROR	*	CODE	*	*	*	*	*	*	*
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*	*	GREATER	*	LESS THAN	*	*	*	*	*	*	*
*	*	THAN	*	OR	*	*	*	*	*	*	*
*	*	-----	*	EQUAL TO	*	*	*	*	*	*	*
*	*	-----	*	-----	*	*	*	*	*	*	*
*	*	0 %	*	10 %	*	*	A	*	*	*	*
*	*	10 %	*	20 %	*	*	B	*	*	*	*
*	*	20 %	*	30 %	*	*	C	*	*	*	*
*	*	30 %	*		*	*	D	*	*	*	*
*	*		*		*	*		*	*	*	*
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****

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GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
REGION OF BASED AIRCRAFT  
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REGION	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT			ILS RECEIVING EQUIPMENT				
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
ALASKAN												
	5178	2013	1523	1021	1691	470	6464	1561	1311	1009	102	6471
	B	B	B	C	B	D	A	B	C	C	D	A
ESTIMATED % OF REGION	65.8	25.6	19.3	13.0	21.5	6.0	82.1	19.8	16.6	12.8	1.3	82.2
CENTRAL												
	6306	6695	7448	3583	9672	4309	6194	7948	7074	6423	16	7500
	A	A	A	B	A	B	A	A	A	A	D	A
ESTIMATED % OF REGION	40.0	42.5	47.2	22.7	61.3	27.3	39.3	50.4	44.9	40.7	0.1	47.6
EASTERN												
	12862	12382	14778	4412	18078	9974	9901	16393	14873	13254	136	10950
	A	A	A	B	A	A	A	A	A	A	D	A
ESTIMATED % OF REGION	45.7	44.0	52.5	15.7	64.2	35.4	35.1	58.2	52.8	47.1	0.5	38.9
EUROPEAN OFFICE												
	282	168	380	15	184	154	243	376	305	373	0	51
	D	D	D	D	D	D	D	D	D	D	A	D
ESTIMATED % OF REGION	53.5	31.9	72.1	2.8	34.8	29.2	46.1	71.2	57.8	70.7	0.0	9.7
GREAT LAKES												
	21999	17754	20987	8979	27153	12447	19289	23661	21569	18708	137	21976
	A	A	A	A	A	A	A	A	A	A	D	A
ESTIMATED % OF REGION	47.4	38.3	45.3	19.4	58.6	26.8	41.6	51.0	46.5	40.3	0.3	47.4
NEW ENGLAND												
	4141	4104	4409	1666	5768	3267	3605	5236	4647	3923	57	3997
	B	B	B	B	B	B	B	B	B	B	D	B
ESTIMATED % OF REGION	44.7	44.3	47.6	18.0	62.2	35.2	38.9	56.5	50.1	42.3	0.6	43.1

STANDARD ERROR		CODE	
GREATER THAN	LESS THAN OR EQUAL TO		
0 %	10 %	A	
10 %	20 %	B	
20 %	30 %	C	
30 %		D	





TABLE 2 - 17

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
REGION OF BASED AIRCRAFT  
1982

PAGE 3 OF 4

REGION	NAVIGATION EQUIPMENT										FLTMGT COMPTN	NO NAVEQ
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT			
ALASKAN	ESTIMATED POPULATION	3282	2448	1217	3259	630	45	62	77	245	0	2174
	% STANDARD ERROR	B	B	C	B	C	D	D	D	D	A	B
	ESTIMATED % OF REGION	41.7	31.1	15.5	41.4	8.0	0.6	0.8	1.0	3.1	0.0	27.6
CENTRAL	ESTIMATED POPULATION	4990	7652	7741	7493	4173	1723	138	1000	845	17	3750
	% STANDARD ERROR	B	A	A	A	B	B	D	C	C	D	B
	ESTIMATED % OF REGION	31.6	48.5	49.1	47.5	26.5	10.9	0.9	6.3	5.4	0.1	23.8
EASTERN	ESTIMATED POPULATION	8400	15237	15819	14408	9434	3571	710	3092	2005	442	5242
	% STANDARD ERROR	A	A	A	A	A	B	C	B	B	D	A
	ESTIMATED % OF REGION	29.8	54.1	56.2	51.1	33.5	12.7	2.5	11.0	7.1	1.6	18.6
EUROPEAN OFFICE	ESTIMATED POPULATION	16	387	310	392	268	6	0	62	52	3	21
	% STANDARD ERROR	D	D	D	D	D	D	A	D	D	D	D
	ESTIMATED % OF REGION	3.0	73.4	58.7	74.3	50.8	1.1	0.0	11.8	9.9	0.6	4.0
GREAT LAKES	ESTIMATED POPULATION	16596	20783	22531	22081	13852	4663	710	3899	3268	796	10123
	% STANDARD ERROR	A	A	A	A	A	B	C	B	B	C	A
	ESTIMATED % OF REGION	35.8	44.8	48.6	47.6	29.9	10.1	1.5	8.4	7.0	1.7	21.8
NEW ENGLAND	ESTIMATED POPULATION	3019	4969	4596	4748	2748	1030	317	601	796	97	2118
	% STANDARD ERROR	B	B	B	B	B	C	D	D	C	D	B
	ESTIMATED % OF REGION	32.6	53.6	49.6	51.2	29.6	11.1	3.4	6.5	8.6	1.0	22.8

\*\*\*\*\*

STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

\*\*\*\*\*

TABLE 2 - 17

**GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
REGION OF BASED AIRCRAFT  
1982**

**PAGE 4 OF 4**

REGION	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
NORTHWEST MT.											
	9508	11954	12083	12478	7263	2580	141	1871	1420	340	5614
	A	A	A	A	A	B	D	B	B	D	A
ESTIMATED % OF REGION	35.6	44.8	45.3	46.8	27.2	9.7	0.5	7.0	5.3	1.3	21.0
SOUTHERN											
	12642	20891	22002	21395	12886	5721	794	4324	2801	872	6254
	A	A	A	A	A	A	C	B	B	C	A
ESTIMATED % OF REGION	32.8	54.3	57.2	55.6	33.5	14.9	2.1	11.2	7.3	2.3	16.2
SOUTHWESTERN											
	13394	18670	21475	21319	14549	5910	1117	4965	4443	800	8423
	A	A	A	A	A	A	C	A	B	C	A
ESTIMATED % OF REGION	33.9	47.2	54.3	53.9	36.8	15.0	2.8	12.6	11.2	2.0	21.3
WESTERN-PACIFIC											
	15644	21337	23348	21031	12954	3316	563	2948	2241	510	7576
	A	A	A	A	A	B	C	B	B	C	A
ESTIMATED % OF REGION	36.7	50.0	54.7	49.3	30.4	7.8	1.3	6.9	5.3	1.2	17.8
TOTAL											
	87749	124679	131906	128829	79437	28375	4871	22668	18018	4004	50822
	A	A	A	A	A	A	A	A	A	B	A
ESTIMATED % OF POP	34.4	48.8	51.7	50.4	31.1	11.1	1.9	8.9	7.1	1.6	19.8

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

STANDARD ERROR	LESS THAN OR EQUAL TO	GREATER THAN	CODE
0 %	10 %		A
10 %	20 %		B
20 %	30 %		C
30 %			D

TABLE 2 - 18

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
PRIMARY USE  
1982

PAGE 1 OF 6

PRIMARY USE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	350 CH	720 CH	2+ SYS	NO COMM	4098 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
EXECUTIVE ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	4032 B 25.6	13609 A 86.5	13768 A 87.5	12 D 0.1	15165 A 102.7	14046 A 89.2	246 D 1.6	15228 A 96.8	14810 A 94.1	14253 A 90.6	359 D 2.3	1098 B 7.0
BUSINESS ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	23315 A 48.7	30024 A 62.7	37730 A 78.8	816 C 1.7	45236 A 94.5	27388 A 57.2	4425 B 9.2	40168 A 83.9	39323 A 82.1	36548 A 76.3	308 D 0.6	8440 A 17.6
PERSONAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	60078 A 63.4	34589 A 36.5	46069 A 48.6	11665 A 12.3	59961 A 63.2	19509 A 20.6	39895 A 42.1	47541 A 50.1	42236 A 44.5	34524 A 36.4	281 D 0.3	49321 A 52.0
INSTRUCTIONAL ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	6870 A 46.7	8463 A 57.5	4226 B 28.7	912 C 6.2	10623 A 72.2	2602 B 17.7	5027 B 34.2	8000 A 54.4	4660 B 31.7	4550 B 30.9	7 D 0.0	7479 A 50.9
AERIAL APPLICATION ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	869 C 12.2	915 C 12.8	695 C 9.7	5726 A 80.0	760 C 10.6	205 D 2.9	6707 A 93.7	629 C 8.8	583 C 8.2	584 C 8.2	2 D 0.0	6834 A 95.5

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STANDARD ERROR	CODE
GREATER THAN	---
LESS THAN	---
OR	---
EQUAL TO	---
0 %	A
10 %	B
20 %	C
30 %	D

\*\*\*\*\*

TABLE 2 - 18

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
PRIMARY USE  
1982

PAGE 2 OF 6

PRIMARY USE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4096 CODE	ALT ENC	NO TRANS	LOC	MKR BEC	GLIDE SLOPE	MLS	NO ILS
AERIAL OBSERVATION ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	2017 B 48.4	2053 B 49.3	2038 B 49.0	515 D 12.4	2926 B 70.3	1480 C 35.5	1571 B 37.7	2027 B 48.7	1473 B 35.4	1355 C 32.5	0 A 0.0	2469 B 59.3
	679 C 39.1	700 C 40.4	423 D 24.4	514 D 29.6	733 C 42.3	268 D 15.5	1137 C 65.6	344 D 19.8	304 D 17.5	293 D 16.9	0 A 0.0	1521 B 87.8
	385 D 36.0	783 C 73.1	951 C 88.8	0 A 0.0	1058 B 98.8	828 C 77.3	63 D 5.9	1060 B 99.1	1004 B 93.8	1004 C 93.8	0 A 0.0	60 D 5.6
COMMUTER AIR CARRIER ESTIMATED POPULATION % STANDARD ERROR ESTIMATED % OF USE	2119 B 26.1	6672 A 82.1	8043 A 74.4	178 D 2.2	7119 A 87.7	5598 A 68.9	1407 B 17.3	6766 A 83.3	6134 A 75.5	6198 A 76.3	0 A 0.0	1758 B 21.7
	1420 B 31.2	2599 B 57.2	2388 B 52.5	874 C 19.2	3079 B 67.7	1986 B 43.7	1694 B 37.3	2662 B 58.6	2349 B 51.7	2293 B 50.4	18 D 0.4	2104 B 46.3

STANDARD ERROR		CODE	
GREATER THAN	LESS THAN OR EQUAL TO		
0 %	10 %	A	
10 %	20 %	B	
20 %	30 %	C	
30 %		D	

**TABLE 2 - 18**

## GENERAL AVIATION AVIONICS EQUIPMENT

人

**PRIMARY USE**

1982

**PAGE 3 OF 6**

PRIMARY USE	VHF COMMUNICATIONS				TRANSPONDER EQUIPMENT				ILS RECEIVING EQUIPMENT			
	360 CH	720 CH	2+ SYS	NO COMM	4098 CODE	ALT ENC	NO TRANS	LOC	MKER BEC	GLIDE SLOPE	MLS	NO ILS
RENTAL												
ESTIMATED POPULATION	3003	6909	6295	488	8899	4748	1219	7687	6956	6650	0	2329
% STANDARD ERROR	B	A	A	D	A	B	B	A	A	A	A	B
ESTIMATED % OF USE	30.5	70.2	63.9	5.0	90.4	48.2	12.4	78.1	70.7	67.5	0.0	23.7
INACTIVE												
ESTIMATED POPULATION	13226	4213	5486	18642	7105	2317	28308	6472	5651	4059	149	28209
% STANDARD ERROR	A	A	A	A	A	B	A	A	A	A	D	A
ESTIMATED % OF USE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL												
ESTIMATED POPULATION	117951	111167	126063	40637	163384	80858	91980	138389	125585	112317	1166	111737
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	A	C	A
ESTIMATED % OF POP	46.2	43.5	49.4	15.9	64.0	31.6	36.0	54.2	49.2	44.0	0.5	43.8

**NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.**

* *****	* STANDARD ERROR -----	* LESS THAN OR EQUAL TO -----	* CODE ---
* *****	* GREATER THAN -----	* 0 %	* A
* *****	* 10 %	* 10 %	* B
* *****	* 20 %	* 20 %	* C
* *****	* 30 %	* 30 %	* D
* *****			

TABLE 2 - 18

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
PRIMARY USE  
1982

PAGE 4 OF 6

PRIMARY USE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
EXECUTIVE	3556	13538	14601	15465	14262	8171	3042	9673	8159	1863	185
	% STANDARD ERROR	A	A	A	A	A	A	A	A	B	D
	ESTIMATED % OF USE	22.6	86.0	92.8	98.3	90.6	51.9	19.3	61.5	51.8	11.8
BUSINESS	17620	33602	40749	40647	29546	10068	652	7033	4969	1171	1272
	% STANDARD ERROR	A	A	A	A	A	C	A	A	C	C
	ESTIMATED % OF USE	36.8	70.2	85.1	84.9	81.7	21.0	1.4	14.7	10.4	2.4
PERSONAL	42984	44649	48393	41360	19028	4210	213	1837	1273	266	16491
	% STANDARD ERROR	A	A	A	A	B	D	B	C	D	A
	ESTIMATED % OF USE	45.3	47.1	51.0	43.6	20.1	4.4	0.2	1.7	1.3	0.3
INSTRUCTIONAL	6436	8062	4760	5096	1777	353	44	144	130	79.	1374
	% STANDARD ERROR	A	A	B	B	D	D	D	D	D	B
	ESTIMATED % OF USE	43.8	54.8	32.4	34.6	12.1	2.4	0.3	1.0	0.9	0.5
AERIAL APPLICATION	489	633	466	691	217	9	5	5	0	0	6302
	% STANDARD ERROR	D	C	D	D	D	D	D	A	A	A
	ESTIMATED % OF USE	6.8	8.9	6.5	9.7	3.0	0.1	0.1	0.0	0.0	0.0

\*\*\*\*\*

* STANDARD ERROR	* CODE
* -----	* -----
* GREATER	* LESS THAN
* THAN	* OR
* -----	* EQUAL TO
* 0 %	* 10 %
* 10 %	* 20 %
* 20 %	* 30 %
* 30 %	* A
* -----	* B
* -----	* C
* -----	* D
* -----	* -----

\*\*\*\*\*



TABLE 2 - 18

GENERAL AVIATION AVIONICS EQUIPMENT  
BY  
PRIMARY USE  
1982

PAGE 6 OF 6

PRIMARY USE	NAVIGATION EQUIPMENT										
	VOR 100CH	VOR 200CH	2+ RCVR	ADF	DME	RNAV	LRNAV	FLT DIR	RADAR ALT	FLTMGT COMPTR	NO NAVEQ
RENTAL											
ESTIMATED POPULATION	1834	7924	6908	6788	2774	874	0	453	47	22	488
% STANDARD ERROR	B	A	A	A	B	C	A	D	D	D	C
ESTIMATED % OF USE	18.6	80.5	70.2	69.0	28.2	8.9	0.0	4.6	0.5	0.2	5.0
INACTIVE											
ESTIMATED POPULATION	10278	4859	5499	5780	2608	640	227	594	458	92	20219
% STANDARD ERROR	A	A	A	A	B	C	D	C	C	D	A
ESTIMATED % OF USE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL											
ESTIMATED POPULATION	87749	124679	131908	128829	79437	28375	4871	22668	18018	4004	50822
% STANDARD ERROR	A	A	A	A	A	A	A	A	A	B	A
ESTIMATED % OF POP	34.4	48.8	51.7	50.4	31.1	11.1	1.9	8.9	7.1	1.6	19.9

NOTE: COLUMN SUMMATIONS MAY DIFFER FROM PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.

STANDARD ERROR		CODE	
GREATER THAN	LESS THAN OR EQUAL TO		
0 %	10 %	A	
10 %	20 %	B	
20 %	30 %	C	
30 %		D	



TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 1 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
OTHER 01	5407.8	662.6	12.3
OTHER 02	2593.7	421.5	16.3
OTHER 03	1669.5	377.6	22.6
OTHER 04	1737.6	354.8	20.4
OTHER 05	67.6	17.7	26.2
OTHER 06	1898.8	452.5	23.8
OTHER 07	390.6	78.1	20.0
OTHER 08	105.4	59.3	56.2
OTHER 09	1867.6	547.0	29.3
OTHER 10	1489.5	330.9	22.2
OTHER 11	694.1	286.7	41.3
OTHER 12	872.1	192.0	22.0
OTHER 13	1134.4	174.3	15.4
AIRPTSA	554.3	75.3	13.6
AIRTRCAT300	344.1	72.8	21.2
AMD FALC20	377.6	10.7	2.8
AMD FALC50	60.4	16.5	27.2
ARCTICS1A	207.1	8.7	4.2
ARONCA15	346.2	29.7	8.6
ARONCA65	187.0	0.0	0.0
ARONCAC3	84.0	5.7	6.8

NOTE: OTHER XX REFERS TO ALL GENERAL AVIATION AIRCRAFT  
BELONGING TO MANUFACTURER/MODEL GROUPS OF FEWER THAN  
20 AIRCRAFT IN SIZE FOR AIRCRAFT XX WHERE XX STANDS FOR

- 01 FIXED WING PISTON, 1 ENGINE, 1-3, SEATS.
- 02 FIXED WING PISTON, 1 ENGINE, 4+ SEATS.
- 03 FIXED WING PISTON, 2 ENGINE, 1-6 SEATS.
- 04 FIXED WING PISTON, 2 ENGINE, 7+ SEATS.
- 05 FIXED WING PISTON, OTHER.
- 06 FIXED WING TURBOPROP, 2 ENGINES, 1-12 SEATS.
- 07 FIXED WING TURBOPROP, 2 ENGINES, 13+ SEATS.
- 08 FIXED WING TURBOPROP, OTHER.
- 09 FIXED WING TURBOJET, 2 ENGINES.
- 10 FIXED WING TURBOJET, OTHER.
- 11 ROTORCRAFT, PISTON.
- 12 ROTORCRAFT, TURBINE.
- 13 OTHER AIRCRAFT.

TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 2 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
AVIAN FALCON	3.7	0.4	10.1
AYRES S2	1870.4	201.7	10.8
AYRES S2T	129.4	16.2	12.5
BALWKSFIREFY	135.4	37.6	27.8
BEAGLEB206	66.0	3.8	5.8
BEECH 100	497.6	118.5	23.8
BEECH 17	374.3	12.9	3.4
BEECH 18	2693.5	203.4	7.6
BEECH 200	1147.0	193.7	16.9
BEECH 23	5084.1	278.5	5.5
BEECH 33	2463.7	312.8	12.7
BEECH 35	15697.8	648.6	5.4
BEECH 36	2370.7	324.8	13.7
BEECH 45	826.2	0.0	0.0
BEECH 50	778.2	20.6	2.7
BEECH 55	4091.4	480.9	11.8
BEECH 58	1804.6	338.3	18.7
BEECH 60	790.4	161.9	20.5
BEECH 65	429.0	52.7	12.3
BEECH 80	529.2	50.2	9.5
BEECH 90	1473.4	397.4	27.0
BEECH 95	1199.9	144.1	12.0

TABLE 2 - 19

## GENERAL AVIATION LIFETIME AIRFRAME HOURS

BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 3 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
BELL 204	428.6	16.1	3.8
BELL 206	3170.9	312.0	9.8
BELL 47	3175.3	313.3	9.9
BLANCA11	1395.1	205.6	14.7
BLANCA1413	402.0	50.9	12.7
BLANCA1419	396.1	39.0	9.8
BLANCA17	1034.7	83.8	8.1
BLANCA7	9720.4	307.5	3.2
BLANCA8	486.1	43.9	9.0
BNORM BN2	326.0	57.5	17.6
BOEING75	4426.5	507.7	11.5
BOEINGB17	53.3	3.2	5.9
CAMRONMODELO	17.9	1.5	8.2
CESSNA120	2107.9	56.5	2.7
CESSNA140	4941.5	261.8	5.3
CESSNA150	39428.9	1413.2	3.6
CESSNA170	6016.7	293.0	4.9
CESSNA172	43186.1	1337.6	3.1
CESSNA175	2687.6	103.8	3.9
CESSNA177	3980.8	313.0	7.9
CESSNA180	5921.8	422.5	7.1
CESSNA182	21843.5	960.7	4.4

TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 4 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
CESSNA185	1974.4	346.9	17.6
CESSNA188	3383.7	351.8	10.4
CESSNA195	1306.9	62.3	4.8
CESSNA205	617.0	75.3	12.2
CESSNA206	4169.0	490.9	11.8
CESSNA207	505.0	221.1	43.8
CESSNA210	8018.4	509.5	6.4
CESSNA305	932.2	53.4	5.7
CESSNA310	6599.8	482.2	7.3
CESSNA320	985.8	63.0	6.4
CESSNA337	1971.3	212.8	10.8
CESSNA340	1329.0	160.0	12.0
CESSNA401	717.7	103.0	14.4
CESSNA402	1113.2	296.4	26.6
CESSNA411	511.6	24.0	4.7
CESSNA414	638.7	128.8	20.2
CESSNA421	1626.9	241.8	14.9
CESSNA500	919.2	135.6	14.8
CHILD S1	64.2	11.9	18.6
COMWTH185	154.2	8.8	5.7
CONAERLA4	554.8	174.8	31.5
CURTISTRVAIR	333.9	22.3	6.7

TABLE 2 - 19

## GENERAL AVIATION LIFETIME AIRFRAME HOURS

BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 5 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
CVAC 240	3.6	0.0	0.0
CVAC BT13	173.7	45.9	26.4
CVAC P4Y	27.9	0.3	0.9
DHAV DHC1	206.6	23.0	11.1
DHAV DHC2	771.5	80.3	10.4
DHAVXXDH82	157.8	21.9	13.9
DOUG A26	119.3	13.8	11.6
DOUG DC3	1340.2	0.0	0.0
DOUG DCG	28.3	8.8	31.0
EMAIR MA1	45.2	3.9	8.5
EMB 110	220.1	0.7	0.3
ENSTRMF28	318.6	60.4	19.0
FLEET 168	47.5	4.0	8.5
FRCHLD24	462.4	23.0	5.0
FRCHLDFH1100	94.3	13.2	14.0
FRCHLDM62	393.3	18.8	4.8
GLASFLH301	103.3	6.0	5.9
GRTLKS2T1	44.9	5.8	12.9
GRUMANG21	16.0	29.3	183.1
GRUMANTBM	70.4	6.3	9.0
GRUMAVAA1	868.8	117.0	13.5
GRUMAVAA5	655.3	168.6	25.7

TABLE 2 - 19

## GENERAL AVIATION LIFETIME AIRFRAME HOURS

BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 6 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
GRUNAVG164	1262.2	222.4	17.6
GULSTM112	737.7	101.1	13.7
GULSTM500	815.3	120.2	14.7
GULSTM680	539.8	93.8	17.4
GULSTM690TP	582.6	72.9	12.5
GULSTMAA1	739.1	84.3	11.4
GULSTMAA5	1616.8	197.8	12.2
GULSTMG1159	532.2	0.0	0.0
GULSTMG44	207.4	18.5	8.0
HELIO H391	33.6	2.2	6.4
HELIO H395	47.2	7.8	16.4
HILLERUH12	1380.2	95.5	6.9
HUGHES269	1105.6	98.0	8.9
HUGHES369	1334.2	278.5	20.9
HWKSLYDH104	108.9	0.0	0.0
HYNES B2	158.3	24.1	15.2
INTRCP200	56.7	2.5	4.3
ISRAEL1124	199.7	54.9	27.5
JBMSTRDGA15	121.8	5.5	4.5
LAIKFN10	16.9	1.3	7.5
LEAR 24	313.3	141.8	45.3
LEAR 35	509.9	114.6	22.5

TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 7 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
LET L13	143.0	19.3	13.5
LKHEED1329	403.9	31.7	7.8
LKHEEDT33	120.0	0.0	0.0
LUSCOM8	4179.6	159.6	3.8
MAULE M4	274.4	15.9	5.8
MAULE M5	116.3	17.1	14.7
MCCULHJ2	7.0	0.9	13.4
MCLISHFUNKB	207.1	5.1	2.5
MNCOUP90	91.2	14.6	16.0
MOONEYM20	9847.6	575.0	5.8
MTSBSIMU2	745.4	125.7	16.9
MULTECD16	106.5	6.4	6.0
NAMER F51	180.0	10.6	5.9
NAMER NA260	142.4	5.8	4.1
NAMER T6	1328.8	119.1	9.0
NAVIONNAVION	2888.7	70.3	2.4
NORD SV4	86.1	9.0	10.4
NORWST65	128.9	4.3	3.3
ORLHELH19	102.9	1.5	1.4
PICARDAX6	34.2	5.4	15.8
PIPER 600	606.4	141.9	23.4
PIPER J2	75.9	5.8	7.7



TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 8 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
PIPER J3	9030.9	563.9	6.2
PIPER J4	399.9	12.8	3.2
PIPER J5	752.0	98.9	13.2
PIPER PA12	2451.8	244.2	10.0
PIPER PA16	781.6	95.6	12.2
PIPER PA17	181.3	13.2	7.3
PIPER PA18	5458.7	673.9	12.3
PIPER PA20	902.0	26.3	2.9
PIPER PA22	12311.1	493.0	4.0
PIPER PA23	8446.9	516.5	6.1
PIPER PA24	8544.4	353.8	4.1
PIPER PA25	3496.5	254.7	7.3
PIPER PA28	41584.8	1246.0	3.0
PIPER PA30	3529.7	208.6	5.9
PIPER PA31	3816.0	320.4	8.4
PIPER PA31T	624.5	205.2	32.9
PIPER PA32	7073.2	579.3	8.2
PIPER PA34	2564.3	342.1	13.3
PIPER PA36	362.2	65.9	18.2
PIPER PA38	2099.1	156.3	7.4
PIPER PA44	331.1	142.7	43.1
PROPTJ200	95.7	4.6	4.8

TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 9 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
RAVEN S50	20.9	1.3	6.1
RAVEN S55	95.0	25.2	26.5
RKVELLNA265	748.1	242.6	32.4
ROBSINR22	88.0	16.9	19.2
RYAN ST3	325.2	35.0	10.8
RYAN STA	30.0	5.0	16.8
SCHLERKAB	58.1	3.6	6.2
SCHZERGI64	2637.7	334.8	12.7
SCHZERSG1	695.0	157.0	22.6
SCHZERSG2	897.1	147.1	16.4
SEWCO CLINGER	5.4	0.4	8.3
SKRSKY55	237.7	11.1	4.7
SKRSKY58	196.6	10.3	5.2
SMITH 600	326.8	41.2	12.6
SNIAS 350	140.0	55.0	39.3
STNSON10	253.6	11.3	4.5
STNSONL5	211.6	12.9	6.1
STNSONV77	130.2	20.9	16.1
STOLAMRC3	193.8	8.3	4.3
TCRAFTA	38.1	13.4	35.0
TCRAFTBC	2937.6	221.6	7.5
TCRAFTBL	467.7	23.8	5.1

TABLE 2 - 19

GENERAL AVIATION LIFETIME AIRFRAME HOURS  
BY  
AIRCRAFT MANUFACTURER/MODEL GROUP  
1982

PAGE 10 OF 10

MANUFACTURER/ MODEL GROUP	HOURS ESTIMATE [IN THOUSANDS]	STANDARD ERROR [IN THOUSANDS]	STANDARD ERROR (%)
TRYTEK65	659.0	36.6	5.6
UNIVACGC1	860.4	95.0	11.0
UNIVAR108	3754.8	162.5	4.3
UNIVAR415	3667.8	250.5	6.8
VARGA 2150	53.0	7.6	14.3
VARGA G21	52.7	5.6	10.6
WACO AS0	62.3	2.9	4.6
WACO UPF7	621.3	0.0	0.0
WACO YK	97.3	3.9	4.0
WTHRLY201	116.3	9.7	8.4
TOTAL AIRCRAFT	434022.5	4300.7	1.0

TABLE 2 - 20

GENERAL AVIATION MEAN HOURS AND ACTIVE ENGINES  
BY ENGINE MANUFACTURER/MODEL GROUP  
1982

PAGE 1 OF 3

ENGINE MANUFACTURER/ MODEL GROUP	ESTIMATE OF ACTIVE POPULATION	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	ESTIMATE OF MEAN HOURS	PERCENT STANDARD ERROR
AMTRMCMCULH	68	64.60	17.15	6	53.59
ANTRVWVOLS	333	27.12	57.24	25	40.41
CONT 6285	106	26.67	63.56	285	16.04
CONT A40	16	84.39	12.64	16	14.70
CONT A50	6	69.76	16.77	85	14.83
CONT A65	4676	6.84	49.21	55	11.67
CONT A75	1252	12.27	60.89	58	19.45
CONT A80	26	48.53	34.75	30	16.57
CONT C125	284	20.77	69.21	61	25.94
CONT C145	1863	8.49	84.51	85	20.79
CONT C85	3571	5.97	59.27	52	9.33
CONT C90	1594	7.78	62.58	68	20.89
CONT E185	1580	7.04	76.49	68	8.22
CONT E225	1318	4.87	88.83	71	7.55
CONT O200	12710	2.60	85.31	132	8.90
CONT O300	8442	2.97	84.57	75	9.30
CONT O360	3575	3.62	89.92	130	9.39
CONT O470	23809	1.60	88.91	139	7.06
CONT O520	27066	1.20	93.49	218	4.44
CONT R670	519	24.84	50.20	74	41.28
DHAVXXGIPSY	69	9.24	69.94	41	12.60
FCD 6440	107	26.27	32.33	55	8.87
FRNKLN4AC176	72	28.66	40.79	33	38.31
FRNKLN4AC199	55	46.91	35.70	42	13.99
FRNKLN6A4150	506	15.59	49.83	44	18.69
FRNKLN6A4165	563	14.40	50.41	45	16.77
FRNKLN6A8215	72	8.07	36.11	40	11.92
FRNKLN6AV335	67	44.23	59.10	249	37.50
FRNKLN6AV350	198	7.84	87.26	110	37.31
FRNKLN6VS335	18	117.43	27.57	4	36.67
FRNKLN03356	105	33.14	57.86	99	48.55
GE CF700	416	0.00	100.00	409	7.39
GE CJ610	802	10.71	89.09	508	21.42
GE CJ805	68	0.00	100.00	148	0.01
GLADENR5	88	23.08	48.25	32	23.22
JACOBPR755	336	13.76	79.30	183	49.82
JACOB8SR755	71	55.83	19.12	42	26.84
JACOB8SR915	26	28.85	35.19	38	15.99
LYC 0540	7216	3.29	87.00	162	9.08
LYC LTS101	70	20.19	82.03	285	8.33

TABLE 2 - 20

GENERAL AVIATION MEAN HOURS AND ACTIVE ENGINES  
BY ENGINE MANUFACTURER/MODEL GROUP  
1982

PAGE 2 OF 3

ENGINE MANUFACTURER/ MODEL GROUP	ESTIMATE OF ACTIVE POPULATION	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	ESTIMATE OF MEAN HOURS	PERCENT STANDARD ERROR
LYC 0145	419	17.00	51.48	48	23.45
LYC 0235	10394	2.52	88.88	262	8.90
LYC 0290	2116	9.38	66.29	58	14.42
LYC 0320	35721	1.17	91.56	169	5.08
LYC 0340	92	10.68	85.49	60	9.59
LYC 0360	25074	1.23	93.85	159	5.26
LYC 0435	934	10.17	80.36	185	13.80
LYC 0480	1264	8.03	86.01	147	13.78
LYC 0540	13547	1.54	93.99	275	6.71
LYC 0541	1132	3.43	88.61	174	13.31
LYC 0720	206	20.84	87.08	168	13.33
LYC R680	248	40.04	39.10	68	41.39
LYC T53	55	7.63	93.02	224	13.12
MNASCO4	11	40.76	52.56	33	14.18
ONAN B48	28535	2.70	70.47	279	4.45
PCKARDV1650	56	8.63	55.57	62	8.24
PWA JT12	458	4.12	95.34	344	11.57
PWA JT15	837	0.00	100.00	226	13.93
PWA JT3D	183	26.81	49.11	396	3.80
PWA JT8	686	0.00	100.00	559	5.23
PWA PT6	3583	1.02	99.09	403	10.14
PWA PT6T	104	0.00	100.00	277	4.00
PWA R1340	1567	9.95	68.83	273	10.32
PWA R1830	345	16.57	62.71	223	18.64
PWA R2000	33	60.81	19.81	32	19.05
PWA R2800	405	16.44	52.89	94	16.57
PWA R985	2055	7.79	53.66	236	10.73
RRoyCEDART	381	9.34	83.61	515	9.32
RRoyCEGIPSY	5	46.39	9.13	16	29.50
RRoyCESPEY	418	0.00	100.00	555	9.80
RRoyCEVIFER	166	24.39	73.60	322	1.38
TMECA AST2T	32	0.00	100.00	372	0.00
TMECA AST3T	36	0.00	100.00	533	32.45
WARNER165	72	41.18	54.22	29	3.34
WARNER185	24	15.24	96.73	25	0.87
WARNER50	21	124.03	11.79	36	18.07
WRIGHTJ5	4	49.16	12.66	18	5.05
WRIGHTR1820	161	12.66	48.54	219	16.04

TABLE 2 - 20

GENERAL AVIATION MEAN HOURS AND ACTIVE ENGINES  
BY ENGINE MANUFACTURER/MODEL GROUP  
1982

PAGE 3 OF 3

ENGINE MANUFACTURER/ MODEL GROUP	ESTIMATE OF ACTIVE POPULATION	PERCENT STANDARD ERROR	ESTIMATE OF PERCENT ACTIVE	ESTIMATE OF MEAN HOURS	PERCENT STANDARD ERROR
WRIGHTR2600	83	12.66	55.65	102	11.62
WRIGHTR3350	111	12.59	53.78	448	16.54
WRIGHTR760	35	65.52	36.79	134	24.40
ALL ENGINES	240520	0.12	82.92	192	1.64

NOTE: ENGINE MANUFACTURER/MODEL GROUPS FOR WHICH  
SEPARATE ESTIMATES ARE NOT AVAILABLE ARE NOT  
LISTED IN THE TABLE, BUT ARE INCLUDED IN THE  
"ALL ENGINES" ESTIMATES.

TABLE 2 - 21

GENERAL AVIATION FUEL CONSUMPTION  
BY AIRCRAFT TYPE  
1982

AIRCRAFT TYPE	MEAN RATE GPH	ESTIMATED FUEL USE (mil gal)	STANDARD ERROR (mil gal)
FIXED WING			
PISTON			
1 ENG 1-3 SEATS	8.30	69.09	1.6
1 ENG 4+ SEATS	10.94	174.28	1.1
TOTAL 1 ENG	10.03	243.37	2.0
2 ENG 1-6 SEATS	26.14	79.45	1.3
2 ENG 7+ SEATS	39.78	104.12	5.7
TOTAL 2 ENG	32.45	183.58	5.8
OTHER PISTON	394.18	13.16	1.1
TOTAL PISTON	14.70	440.11	6.2
TURBOPROP			
2 ENG 1-12 SEATS	76.88	121.16	2.0
2 ENG 13+ SEATS	214.86	111.81	11.1
TOTAL 2 ENG	111.13	232.97	11.3
OTHER TURBOPROP	43.35	3.09	2.1
TOTAL TURBOPROP	108.91	236.06	11.5
TURBOJET			
2 ENG	297.77	401.08	29.0
OTHER	705.05	186.12	37.0
TOTAL TURBOJET	364.52	587.18	47.0
TOTAL FIXED WING	37.46	1263.35	48.7
ROTORCRAFT			
PISTON	14.09	8.16	0.2
TURBINE	36.25	64.21	6.2
TOTAL ROTORCRAFT	30.79	72.37	6.2
OTHER	0.00	0.00	0.0
TOTAL AIRCRAFT	36.64	1335.72	49.1
TOTAL JET FUEL	159.91	887.45	48.7
TOTAL AVIATION GASOLINE	14.50	448.27	6.3

TABLE 2-22

## NON-HIERARCHICAL VS. HIERARCHICAL CAPABILITY GROUPS

1982										PAGE 1 OF 2	
	1	2	3	4	5	6	7	8	TOTALS		
L	150	232	4549	10893	0	95	1268	740	17925		
	% ESTIMATE	45.9	10.6	7.1	0.0	*	21.1	27.9	5.4		
	% STD ERR	0.8	1.3	25.4	60.8	0.0	7.1	4.1			
L, MB	98	0	652	8007	0	0	1321	1461	11538		
	% ESTIMATE	0.0	23.3	8.0	0.0	0.0	21.0	18.9	6.6		
	% STD ERR	0.8	0.0	5.7	69.4	0.0	11.4	12.7			
L, MB, GS	378	202	1990	33781	84	525	11250	43445	91654		
	% ESTIMATE	38.9	17.0	3.7	*	33.5	6.9	2.9	1.6		
	% STD ERR	0.4	0.2	2.2	36.9	0.1	12.3	47.4			
L, MB, GS, R	25	0	72	575	3	107	240	16248	17271		
	% ESTIMATE	0.1	0.0	0.4	28.6	*	46.3	3.9	3.8		
	% STD ERR	0.1	0.0	0.2	3.3	0.0	1.4	94.1			
LRN	2	97	85	432	0	56	117	4083	4871		
	% ESTIMATE	0.0	2.0	1.7	8.9	1.1	2.4	83.8	7.8		
	% STD ERR	0.0	0.7	0.2	0.5	4.5	0.7	6.5	1.9		
R	32	3	88	682	3	112	330	16769	18018		
	% ESTIMATE	0.2	21.1	*	26.5	*	40.3	3.8	3.7		
	% STD ERR	0.1	0.0	0.5	3.8	0.6	1.8	93.1			
M	71	0	27	275	0	0	74	718	1168		
	% ESTIMATE	6.1	0.0	2.3	47.3	0.0	*	25.1	21.0		
	% STD ERR	0.2	0.0	0.1	23.6	0.0	6.3	61.6			
L, MB, GS, M	0	0	1	254	0	0	71	718	1045		
	% ESTIMATE	0.0	0.0	*	24.3	0.0	*	25.1	22.3		
	% STD ERR	0.0	0.0	0.1	0.3	0.0	8.8	68.7			
	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	0.4		



TABLE 2-22

NON-HIERARCHICAL VS. HIERARCHICAL CAPABILITY GROUPS  
(CONTINUED)

LRN, M	1982								PAGE 2 OF 2	
	1	2	3	4	5	6	7	8	TOTALS	TOTALS
NO GROUP	ESTIMATE	0	0	15	0	0	0	307	321	
	% STD ERR	0.0	0.0	*	0.0	0.0	0.0	40.8	39.6	
	ROW %	0.0	0.0	4.7	0.0	0.0	0.0	95.6	0.1	
ALL CRAFT	ESTIMATE	39860	12782	34312	25995	159	490	525	116473	
	% STD ERR	2.8	5.7	3.4	4.4	*	33.3	30.9	1.2	
	ROW %	34.1	11.0	29.5	22.3	0.1	0.4	2.2	0.5	
	ESTIMATE	98.2	96.0	82.3	32.8	84.6	39.5	15.3	45.6	
	% STD ERR	40391	13313	41682	79320	248	1242	16649	62521	
	ROW %	2.8	5.8	3.1	2.1	48.8	20.8	5.6	2.0	
	ESTIMATE	15.8	5.2	16.3	31.1	0.1	0.5	6.5	24.5	
	% STD ERR									
	ROW %									

## KEY

GROUP	GROUP	GROUP
1. NO REGULATORY AVIONICS	4. TWO-WAY COMMUNICATIONS	7. TWO-WAY COMMUNICATIONS
2. TWO-WAY COMMUNICATIONS	TWO SYSTEMS - AIR TAXIS	TWO SYSTEMS - AIR TAXIS
3. TWO-WAY COMMUNICATIONS	4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS	VOR OR RNAV	ALTITUDE ENCODING EQUIPMENT
VOR OR ADF OR RNAV	5. 4096 CODE TRANSPONDER	8. TWO-WAY COMMUNICATIONS
	ALTITUDE ENCODING EQUIPMENT	TWO SYSTEMS - AIR TAXIS
	6. TWO-WAY COMMUNICATIONS	ALTITUDE ENCODING EQUIPMENT
	4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
	ALTITUDE ENCODING EQUIPMENT	VOR OR RNAV
		DME

GROUP	GROUP
L: LOCALIZER	R: RADAR ALTIMETER
MB: MARKER BEACON	LRN: LONG RANGE RNAV
GS: GLIDE SLOPE	M: MICROWAVE LANDING SYSTEM

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
\* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-23

## HIERARCHICAL GROUPS - PRIMARY USE VS. CAPABILITY GROUP

1982										PAGE 1 OF 2	
	1	2	3	4	5	6	7	8	TOTALS		
EXECUTIVE	10	137	242	1975	2	54	576	13408	16404		
	% ESTIMATE	31.4	39.8	15.8	*	*	28.8	4.6	4.3		
	% STD ERR	0.1	0.8	1.5	0.0	0.3	3.5	81.7	8.4		
BUSINESS	711	689	3123	17739	105	33	3922	23317	49638		
	% ESTIMATE	29.1	12.6	5.4	*	*	12.2	4.4	2.8		
	% STD ERR	1.4	6.3	35.7	0.2	0.1	7.9	47.0	19.4		
PERSONAL	11585	5535	23708	39471	85	178	5548	12708	99798		
	% ESTIMATE	5.9	4.3	3.3	*	*	9.3	6.3	1.6		
	% STD ERR	11.6	23.8	39.6	0.1	0.2	8.6	12.7	39.1		
INSTRUCT.	28.7	41.6	56.9	49.8	26.4	14.3	39.3	20.3	15645		
	% ESTIMATE	704	3595	7834	0	4	1155	1441	5.8		
	% STD ERR	23.0	12.6	8.7	0.0	*	23.7	20.5	6.1		
AERIAL AP	5720	658	409	465	0	0	65	139	7458		
	% ESTIMATE	9.4	31.7	33.7	0.0	0.0	*	*	7.8		
	% STD ERR	76.7	5.5	6.2	0.0	0.0	0.9	1.9	2.9		
AERIAL OB	514	337	949	1215	0	88	545	846	4495		
	% ESTIMATE	30.3	24.7	20.6	0.0	*	34.3	25.9	10.8		
	% STD ERR	11.4	21.1	27.0	0.0	2.0	12.1	18.8	1.8		
OTHER WORK	513	506	256	325	0	8	90	169	1868		
	% ESTIMATE	34.2	33.6	33.9	0.0	*	*	45.4	15.7		
	% STD ERR	27.5	13.7	17.4	0.0	0.4	4.8	9.0	0.7		
COMPUTER	1.3	3.8	0.6	0.4	0.0	0.6	0.5	0.3	1119		
	% ESTIMATE	0	47	230	0	0	38	790	19.0		
	% STD ERR	0.0	*	46.2	0.0	0.0	*	23.0	0.4		
	0.0	1.4	4.2	20.6	0.0	0.0	3.2	70.8			
	% ESTIMATE	0.0	0.1	0.3	0.0	0.0	0.2	1.3			
	% STD ERR	0.0									

TABLE 2-23

HIERARCHICAL GROUPS - PRIMARY USE VS. CAPABILITY GROUP  
(CONTINUED)

1982										PAGE 2 OF 2	
	1	2	3	4	5	6	7	8	TOTALS		
AIR TAXI											
ESTIMATE	178	1705	345	698	0	697	853	4044	8521		
% STD ERR	*	16.9	39.3	25.2	0.0	27.0	24.6	10.9	7.3		
ROW %	2.1	20.0	4.0	8.2	0.0	8.2	10.0	47.5			
COLUMN %	0.4	12.8	0.8	0.9	0.0	56.1	5.1	6.5	3.3		
OTHER											
ESTIMATE	871	839	274	800	2	82	213	1687	4768		
% STD ERR	25.8	22.8	42.1	23.6	*	*	49.8	16.4	9.9		
ROW %	18.3	17.6	5.7	16.8	0.0	1.7	4.5	35.4			
COLUMN %	2.2	6.3	0.7	1.0	0.8	6.6	1.3	2.7	1.9		
RENTAL											
ESTIMATE	417	219	872	4081	71	3	2289	2404	10116		
% STD ERR	34.3	47.6	27.2	12.5	*	*	16.8	16.0	7.6		
ROW %	4.1	2.2	6.6	40.1	0.7	0.0	22.4	23.8			
COLUMN %	1.0	1.6	1.6	5.1	28.9	0.2	13.6	3.8	4.0		
INACTIVE											
ESTIMATE	18859	1939	8236	4451	3	107	496	1748	35840		
% STD ERR	4.6	14.6	7.6	10.6	*	*	27.7	18.3	3.3		
ROW %	52.6	5.4	23.0	12.4	0.0	0.3	1.4	4.9			
COLUMN %	46.7	14.6	19.8	5.6	1.2	8.6	3.0	2.8	14.0		
TOTALS											
ESTIMATE	40391	13313	41682	79320	248	1242	16649	82521	255387		
% STD ERR	2.8	5.6	3.1	2.1	48.8	20.8	5.6	2.0			
ROW %	15.8	5.2	16.3	31.1	0.1	0.5	6.5	24.5			

## KEY

GROUP	GROUP
1. NO REGULATORY AVIONICS	7. TWO-WAY COMMUNICATIONS
2. TWO-WAY COMMUNICATIONS	TWO SYSTEMS - AIR TAXIS
3. TWO-WAY COMMUNICATIONS	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS	ALTITUDE ENCODING EQUIPMENT
VOR OR ADF OR RNAV	
4. TWO-WAY COMMUNICATIONS	8. TWO-WAY COMMUNICATIONS
4096 CODE TRANSPONDER	TWO SYSTEMS - AIR TAXIS
ALTITUDE ENCODING EQUIPMENT	ALTITUDE ENCODING EQUIPMENT
5. TWO-WAY COMMUNICATIONS	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS	VOR OR RNAV
VOR OR ADF OR RNAV	DME
6. TWO-WAY COMMUNICATIONS	
4096 CODE TRANSPONDER	
ALTITUDE ENCODING EQUIPMENT	

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-24

## HIERARCHICAL GROUPS - HOURS FLOWN VS. CAPABILITY GROUP

1982										PAGE 1 OF 2
	1	2	3	4	5	6	7	8	TOTALS	
1-49	ESTIMATE % STD ERR ROW % COLUMN %	6 18.0 23.8 3608.0	11 7.6 30.5 2478.0	5 27.7 35.5 8780.0	5 31.6 21.3 22513.0	60 0.3 64.6 11.0	54 0.4 17.3 127.0	16 3.9 12.6 4181.0	9 10.4 8.9 10364.0	2 20.9 52050.0
50-99	ESTIMATE % STD ERR ROW % COLUMN %	11 6.9 8.9 1920.0	13 4.8 18.6 1318.0	7 16.9 21.1 4387.0	4 43.2 28.4 12618.0	116 0.0 4.5 71.0	73 0.2 10.2 152.0	11 8.0 25.1 2777.0	7 19.9 16.6 10367.0	2 20.4 33609.0
100-149	ESTIMATE % STD ERR ROW % COLUMN %	16 5.7 4.8 891.0	18 3.9 9.9 773.0	11 13.1 10.5 1259.0	6 37.5 15.9 4903.0	100 0.2 28.9 2.0	66 0.5 12.2 18.0	14 8.3 16.7 1286.0	7 30.8 16.6 7694.0	3 13.2 16826.0
150-199	ESTIMATE % STD ERR ROW % COLUMN %	27 4.2 1.7 1343.0	26 4.6 5.8 613.0	20 7.6 3.0 894.0	10 29.5 6.2 4438.0	392 0.0 0.8 0.0	73 0.1 1.4 38.0	20 7.7 7.7 1086.0	8 46.3 12.3 6272.0	5 6.5 14684.0
200-249	ESTIMATE % STD ERR ROW % COLUMN %	21 9.1 3.3 1089.0	27 4.2 4.6 133.0	25 6.1 2.1 500.0	11 30.2 5.6 2271.0	0 0.0 0.0 2.0	106 0.3 3.1 88.0	23 7.4 6.5 802.0	9 42.7 10.0 3693.0	6 5.8 8557.0
250-299	ESTIMATE % STD ERR ROW % COLUMN %	23 12.5 2.6 681.0	42 1.6 1.0 277.0	33 5.8 1.2 634.0	16 26.5 2.9 2515.0	392 0.0 0.8 0.0	74 1.0 7.1 49.0	26 9.4 4.8 686.0	12 43.2 5.9 4516.0	8 3.4 9359.0
300-349	ESTIMATE % STD ERR ROW % COLUMN %	29 7.3 1.7 308.0	41 3.0 2.1 345.0	30 6.8 1.5 355.0	15 26.9 3.2 1324.0	0 0.0 0.0 0.0	103 0.5 3.9 35.0	31 7.3 4.1 592.0	10 48.3 7.2 2567.0	7 3.7 5525.0
350-399	ESTIMATE % STD ERR ROW % COLUMN %	43 5.6 0.8 608.0	38 6.2 2.6 189.0	43 6.4 0.9 305.0	21 24.0 1.7 1709.0	0 0.0 0.0 0.0	132 0.6 2.8 38.0	33 10.7 3.6 711.0	13 46.5 4.1 2618.0	10 2.2 6176.0

TABLE 2-24

HIERARCHICAL GROUPS - HOURS FLOWN VS. CAPABILITY GROUP  
(CONTINUED)

		1982								PAGE 2 OF 2	
		1	2	3	4	5	6	7	8	TOTALS	
400-449	ESTIMATE	31	45	44	19	0	124	30	14		
	% STD ERR	9.8	3.1	4.9	27.7	0.0	0.6	11.5	42.4		
	ROW %	1.5	1.4	0.7	2.2	0.0	3.1	4.3	4.2		
450 UP	COLUMN %	1526.0	1135.0	1624.0	5560.0	0.0	385.0	2045.0	7267.0	19541.0	
	ESTIMATE	19	18	19	10	0	33	17	7	5	
	% STD ERR	7.8	5.8	8.3	28.5	0.0	2.0	10.5	37.2		
INACTIVE	ROW %	3.8	8.5	3.9	7.0	0.0	31.0	12.3	11.6	7.7	
	COLUMN %	19859.0	1939.0	8236.0	4451.0	3.0	107.0	496.0	1748.0	35840.0	
	ESTIMATE	4	14	7	10	109	76	27	16	3	
TOTALS	% STD ERR	*	5.4	23.0	12.4	0.0	0.3	1.4	4.9		
	ROW %	46.7	14.6	19.8	5.6	1.2	8.6	3.0	2.8	14.0	
	COLUMN %	40391.0	13313.0	41682.0	79320.0	246.0	1242.0	16649.0	62521.0	255387.0	
	ESTIMATE	2	5	3	2	48	20	5	2	0	
	% STD ERR	15.8	5.2	16.3	31.1	0.1	0.5	6.5	24.5		
	ROW %	3645.0	2054.0	2923.0	11903.0	154.0	495.0	5607.0	20748.0	47530.0	

## KEY

GROUP	GROUP
1. NO REGULATORY AVIONICS	7. TWO-WAY COMMUNICATIONS
2. TWO-WAY COMMUNICATIONS	TWO SYSTEMS - AIR TAXIS
3. TWO-WAY COMMUNICATIONS	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS	ALTITUDE ENCODING EQUIPMENT
VOR OR ADF OR RNAV	
5. 4096 CODE TRANSPONDER	8. TWO-WAY COMMUNICATIONS
ALTITUDE ENCODING EQUIPMENT	TWO SYSTEMS - AIR TAXIS
6. TWO-WAY COMMUNICATIONS	ALTITUDE ENCODING EQUIPMENT
4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
ALTITUDE ENCODING EQUIPMENT	VOR OR RNAV
	DME

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-25

## HIERARCHICAL GROUPS - AGE OF AIRCRAFT VS. CAPABILITY GROUP

1982										PAGE 1 OF 2	
	1	2	3	4	5	6	7	8	TOTALS		
0- 4 YRS	ESTIMATE	12	15	7	82	34	10	4	3		
	% STD ERR	7.7	4.3					43.7			
	ROW %	9.0	15.4	25.0	0.3	1.0	11.8	33.2	18.6		
	COLUMN %	6742.0	3083.0	5074.0	62.6	39.9	3981.0	16972.0	56175.0		
5- 9 YRS	ESTIMATE	9	13	5	0	42	12	5	2		
	% STD ERR	12.0	5.5	35.6	0.0	0.6	7.1	30.2	22.0		
	ROW %	16.7	23.2	25.2	0.0	27.3	23.9	27.1	8283.0		
	COLUMN %	4325.0	1758.0	5440.0	2.0	140.0	2254.0	8283.0	35687.0		
10-14 YRS	ESTIMATE	12	17	8	77	88	18	7	3		
	% STD ERR	12.1	4.9	37.8	0.0	0.4	6.3	23.2	14.0		
	ROW %	10.7	13.2	17.0	0.8	11.3	13.5	13.2	42050.0		
	COLUMN %	3348.0	2046.0	8410.0	106.0	27.0	2089.0	9456.0	42050.0		
15-19 YRS	ESTIMATE	13	15	5	80	33	16	7	3		
	% STD ERR	8.0	4.9	39.4	0.3	0.1	5.0	22.5	16.5		
	ROW %	8.3	15.4	20.2	43.1	2.2	12.5	15.1	22087.0		
	COLUMN %	2360.0	923.0	4410.0	0.0	156.0	1313.0	3441.0	22087.0		
20-24 YRS	ESTIMATE	15	22	6	0	66	19	11	4		
	% STD ERR	10.7	4.2	42.8	0.0	0.7	5.9	15.6	8.6		
	ROW %	5.8	8.9	12.0	0.0	12.6	7.9	5.5	13145.0		
	COLUMN %	1787.0	701.0	3670.0	0.0	21.0	870.0	811.0	13145.0		
25-29 YRS	ESTIMATE	18	29	13	0	80	24	21	6		
	% STD ERR	13.6	5.3	27.9	0.0	0.2	6.6	6.2	5.1		
	ROW %	4.4	5.3	8.8	0.0	1.7	5.2	1.3	9571.0		
	COLUMN %	1821.0	598.0	4007.0	0.0	3.0	247.0	611.0	9571.0		
30-34 YRS	ESTIMATE	15	27	10	0	100	23	24	6		
	% STD ERR	19.0	6.2	41.9	0.0	0.0	2.6	6.4	3.7		
	ROW %	4.5	4.5	9.6	0.0	0.2	1.5	1.0	29114.0		
	COLUMN %	14719.0	2356.0	8182.0	1.0	187.0	497.0	589.0	29114.0		
35+ YRS	ESTIMATE	4	14	6	296	59	30	20	3		
	% STD ERR	*	8.1	28.1	0.0	0.6	1.7	2.0	11.4		
	ROW %	36.4	17.7	19.6	0.4	15.1	3.0	0.8	62521.0		
	COLUMN %	40391.0	13313.0	41682.0	246.0	1242.0	16649.0	62521.0	255367.0		

TABLE 2-25

HIERARCHICAL GROUPS - AGE OF AIRCRAFT VS. CAPABILITY GROUP  
(CONTINUED)

		1982								PAGE 2 OF 2
		1	2	3	4	5	6	7	8	TOTALS
TOTALS	ESTIMATE	2	5	3	2	48	20	5	2	0
	% STD ERR	15.8	5.2	16.3	31.1	0.1	0.5	6.5	24.5	
	ROW %	13918.0	3928.0	1571.0	446.0	55.0	1.0	14.0	127.0	20058.0

## KEY

GROUP	GROUP
1. NO REGULATORY AVIONICS	7. TWO-WAY COMMUNICATIONS
2. TWO-WAY COMMUNICATIONS	TWO SYSTEMS - AIR TAXIS
3. TWO-WAY COMMUNICATIONS	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS	ALTITUDE ENCODING EQUIPMENT
VOR OR ADF OR RNAV	
4. TWO-WAY COMMUNICATIONS	8. TWO-WAY COMMUNICATIONS
4096 CODE TRANSPONDER	TWO SYSTEMS - AIR TAXIS
ALTITUDE ENCODING EQUIPMENT	ALTITUDE ENCODING EQUIPMENT
	VOR OR RNAV
	DME

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
\* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-28

## HIERARCHICAL GROUPS - COMPUTED AIRCRAFT TYPE VS. CAPABILITY GROUP

	1982								PAGE 1 OF 2	
	1	2	3	4	5	6	7	8	TOTALS	TOTALS
FIXED WING	28368	5627	25988	19295	1	97	2176	556	82090	
PISTON	3.4	9.6	3.7	4.9	*	*	16.6	32.4	0.0	
ENG=1	34.6	6.9	31.6	23.5	0.0	0.1	2.7	0.7		
1-3 SEATS	70.2	42.3	62.3	24.3	0.4	7.8	13.1	0.9	32.1	
FIXED WING	3805	2135	14216	53741	187	630	12897	30397	118008	
PISTON	11.3	16.6	5.7	2.4	*	31.5	6.4	3.7	0.0	
ENG=1	3.2	1.8	12.0	45.5	0.2	0.5	10.9	25.8		
4+ SEATS	9.4	16.0	34.1	67.8	76.0	50.7	77.5	48.6	46.2	
FIXED WING	499	14	282	3115	2	72	689	13816	18469	
PISTON	33.1	37.6	42.8	11.8	*	*	26.6	3.1	0.0	
ENG=2	2.7	0.1	1.5	16.9	0.0	0.4	3.6	74.8		
1-6 SEATS	1.2	0.1	0.7	3.9	0.8	5.8	4.0	22.1	7.2	
FIXED WING	316	75	439	964	0	176	433	7658	10061	
PISTON	23.2	41.8	23.5	18.1	0.0	49.3	25.4	3.1	0.0	
ENG=2	3.1	0.7	4.4	9.6	0.0	1.7	4.3	76.1		
7+ SEATS	0.8	0.6	1.1	1.2	0.0	14.2	2.6	12.2	3.9	
FIXED WING	51	12	9	126	0	0	6	137	341	
PISTON	28.3	*	*	24.8	0.0	0.0	*	22.7	0.0	
OTHER	15.0	3.5	2.6	37.0	0.0	0.0	1.8	40.2		
	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.2	0.1	
FIXED WING	2	2	0	6	0	56	0	4424	4490	
TURBOPROP	*	0.0	0.0	46.8	0.0	*	0.0	1.0	0.0	
ENG=2	0.0	0.0	0.0	0.1	0.0	1.2	0.0	98.5		
1-12 SEAT	0.0	0.0	0.0	0.0	0.0	4.5	0.0	7.1	1.8	
FIXED WING	0	0	0	82	0	0	22	538	642	
TURBOPROP	0.0	0.0	0.0	*	0.0	0.0	*	9.2	0.0	
ENG=2	0.0	0.0	0.0	12.8	0.0	0.0	3.4	83.8		
13+ SEATS	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.9	0.3	
FIXED WING	120	9	7	7	0	0	1	60	205	
TURBOPROP	28.0	17.8	*	*	0.0	0.0	*	*	0.0	
OTHER	58.5	4.4	3.4	3.4	0.0	0.0	0.5	29.3		
	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	



TABLE 2-26

HIERARCHICAL GROUPS - COMPUTED AIRCRAFT TYPE VS. CAPABILITY GROUP  
(CONTINUED)

1982										PAGE 2 OF 2	
	1	2	3	4	5	6	7	8	TOTALS		
FIXED WING TURBOJET ENG=2	ESTIMATE	0	0	47	0	35	74	3318	3475		
	% STD ERR	0.0	0.0	*	0.0	*	*	2.5	0.0		
	ROW %	0.0	0.0	1.4	0.0	1.0	2.1	95.5	0.0		
FIXED WING TURBOJET OTHER	COLUMN %	0.0	0.0	0.1	0.0	2.8	0.4	5.3	1.4		
	ESTIMATE	29	0	20	0	0	52	789	889		
	% STD ERR	36.7	0.0	*	0.0	0.0	*	6.6	0.0		
ROTORCRAFT PISTON	ROW %	3.3	0.0	2.2	0.0	0.0	5.8	88.8	0.0		
	COLUMN %	0.1	0.0	0.0	0.0	0.0	0.3	1.3	0.3		
	ESTIMATE	2858	1758	338	189	0	75	55	7		
ROTORCRAFT TURBINE	% STD ERR	8.9	10.1	27.6	41.5	0.0	*	*	0.0		
	ROW %	54.1	33.3	8.4	3.6	0.0	1.4	1.0	0.1		
	COLUMN %	7.1	13.2	0.8	0.2	0.0	8.0	0.3	0.0		
OTHER	ESTIMATE	236	1012	351	1672	0	243	818	4430		
	% STD ERR	39.4	17.3	31.8	12.2	0.0	36.9	20.1	0.0		
	ROW %	5.3	22.8	7.9	37.7	0.0	5.5	18.5	0.0		
ALL CRAFT	COLUMN %	0.6	7.6	0.8	2.1	0.0	1.5	1.3	1.7		
	ESTIMATE	4108	2689	72	55	58	22	2	6985		
	% STD ERR	6.2	9.5	*	*	*	48.8	*	0.0		
ALL CRAFT	ROW %	58.8	38.2	1.0	0.8	0.8	0.3	0.0	0.0		
	COLUMN %	10.2	20.0	0.2	0.1	22.8	0.1	0.0	2.7		
	ESTIMATE	40391	13313	41882	79320	248	16649	62521	255387		
ALL CRAFT	% STD ERR	2.8	5.6	3.1	2.1	48.8	5.6	2.0	0.0		
	ROW %	15.8	5.2	16.3	31.1	0.1	6.5	24.5	0.0		
	COLUMN %	35439.0	10479.0	40821.0	74788.0	189.0	15342.0	31583.0	209523.0		

## KEY

GROUP	GROUP	GROUP
1. NO REGULATORY AVIONICS	4. TWO-WAY COMMUNICATIONS	7. TWO-WAY COMMUNICATIONS
2. TWO-WAY COMMUNICATIONS	TWO SYSTEMS - AIR TAXIS	TWO SYSTEMS - AIR TAXIS
3. TWO-WAY COMMUNICATIONS	4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS	VOR OR RNAV	ALTITUDE ENCODING EQUIPMENT
VOR OR ADF OR RNAV	5. 4096 CODE TRANSPONDER	8. TWO-WAY COMMUNICATIONS
	ALTITUDE ENCODING EQUIPMENT	TWO SYSTEMS - AIR TAXIS
	6. TWO-WAY COMMUNICATIONS	ALTITUDE ENCODING EQUIPMENT
	4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
	ALTITUDE ENCODING EQUIPMENT	VOR OR RNAV
		DME

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
\* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-27

## HIERARCHICAL GROUPS - BASE AIRPORT REGION VS. CAPABILITY GROUP

		1982								PAGE 1 OF 2	
		1	2	3	4	5	6	7	8	TOTALS	
ALASKAN	ESTIMATE	1018	1488	3829	1147	0	71	218	197	8067	
	% STD ERR	23.3	20.2	12.3	21.5	0.0	*	*	49.8	8.3	
	ROW %	12.6	18.4	48.7	14.2	0.0	0.9	2.7	2.4		
CENTRAL	COLUMN %	2.5	11.2	9.4	1.4	0.0	5.7	1.3	0.3	3.2	
	ESTIMATE	3504	321	2385	5297	59	0	885	3384	15836	
	% STD ERR	12.6	38.8	15.3	10.7	*	0.0	28.9	13.0	5.9	
EASTERN	ROW %	22.1	2.0	15.1	33.4	0.4	0.0	5.6	21.4		
	COLUMN %	8.7	2.4	5.7	6.7	24.0	0.0	5.3	5.4	6.2	
	ESTIMATE	4446	988	4661	7941	11	236	1916	7822	28000	
EUROPEAN	% STD ERR	10.5	20.0	10.9	8.6	*	46.3	18.5	8.5	4.3	
	ROW %	15.9	3.5	18.6	28.4	0.0	0.8	8.8	27.9		
	COLUMN %	11.0	7.3	11.2	10.0	4.5	18.0	11.5	12.5	11.0	
GRT LAKES	ESTIMATE	15	12	211	29	0	0	19	133	419	
	% STD ERR	*	*	*	*	0.0	0.0	*	*	35.1	
	ROW %	3.6	2.9	50.4	6.9	0.0	0.0	4.5	31.7		
NEW ENG.	COLUMN %	0.0	0.1	0.5	0.0	0.0	0.0	0.1	0.2	0.2	
	ESTIMATE	8974	1655	9028	14223	5	196	1841	10497	46419	
	% STD ERR	7.4	16.6	7.7	6.4	*	*	17.8	7.1	3.2	
NTHWST MT	ROW %	19.3	3.6	19.4	30.6	0.0	0.4	4.0	22.6		
	COLUMN %	22.2	12.4	21.7	17.9	2.0	15.8	11.1	16.8	18.2	
	ESTIMATE	1652	578	1575	2271	6	4	677	2561	9325	
SOUTHERN	% STD ERR	18.1	29.7	18.7	16.4	*	*	30.6	15.5	7.8	
	ROW %	17.7	6.2	16.9	24.4	0.1	0.0	7.3	27.5		
	COLUMN %	4.1	4.3	3.8	2.9	2.4	0.3	4.1	4.1	3.7	
NTHWST MT	ESTIMATE	4152	2103	3762	9241	0	17	1620	5786	26681	
	% STD ERR	11.1	16.1	11.8	7.9	0.0	*	19.6	10.1	4.4	
	ROW %	15.6	7.9	14.1	34.6	0.0	0.1	6.1	21.7		
SOUTHERN	COLUMN %	10.3	15.8	9.0	11.7	0.0	1.4	9.7	9.3	10.4	
	ESTIMATE	4924	1694	5369	12041	2	271	3046	10776	38124	
	% STD ERR	10.2	17.6	10.1	7.0	*	48.6	14.8	6.8	3.6	
SOUTHERN	ROW %	12.9	4.4	14.1	31.6	0.0	0.7	8.0	28.3		
	COLUMN %	12.2	12.7	12.8	15.2	0.8	21.8	18.3	17.2	14.9	

TABLE 2-27  
HIERARCHICAL GROUPS - BASE AIRPORT REGION VS. CAPABILITY GROUP  
(CONTINUED)

		1982								PAGE 2 OF 2	
		1	2	3	4	5	6	7	8	TOTALS	
SOUTHWEST	ESTIMATE	6918	1606	4935	12064	174	313	2300	11200	39508	
	% STD ERR	8.8	17.0	10.5	6.9	*	47.3	16.6	6.7	3.5	
	ROW %	17.5	4.1	12.5	30.5	0.4	0.8	5.8	28.3		
WST-PACIF	COLUMN %	17.1	12.1	11.8	15.2	70.7	25.2	13.8	17.9	15.5	
	ESTIMATE	5187	2824	5842	14132	0	161	4228	10612	42985	
	% STD ERR	9.7	12.8	9.1	8.3	0.0	*	11.5	7.1	3.3	
TOTALS	ROW %	12.1	6.6	13.6	32.9	0.0	0.4	9.8	24.7		
	COLUMN %	12.8	21.2	14.0	17.8	0.0	13.0	25.4	17.0	16.8	
	ESTIMATE	40391	13313	41882	79320	248	1242	16848	62521	255367	
	% STD ERR	2.8	5.6	3.1	2.1	48.8	20.8	5.6	2.0		
	ROW %	15.8	5.2	16.3	31.1	0.1	0.5	6.5	24.5		

KEY

GROUP		GROUP	
1. NO REGULATORY AVIONICS		4. TWO-WAY COMMUNICATIONS	7. TWO-WAY COMMUNICATIONS
2. TWO-WAY COMMUNICATIONS		TWO SYSTEMS - AIR TAXIS	TWO SYSTEMS - AIR TAXIS
3. TWO-WAY COMMUNICATIONS		4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
TWO SYSTEMS - AIR TAXIS		VOR OR RNAV	ALTITUDE ENCODING EQUIPMENT
VOR OR ADF OR RNAV		5. 4096 CODE TRANSPONDER	8. TWO-WAY COMMUNICATIONS
		ALTITUDE ENCODING EQUIPMENT	TWO SYSTEMS - AIR TAXIS
		6. TWO-WAY COMMUNICATIONS	ALTITUDE ENCODING EQUIPMENT
		4096 CODE TRANSPONDER	4096 CODE TRANSPONDER
		ALTITUDE ENCODING EQUIPMENT	VOR OR RNAV
			DME

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
\* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-28

## NON-HIERARCHICAL GROUPS - PRIMARY USE VS. CAPABILITY GROUP

PAGE 1 OF 2

1982

	L	L, MB GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
EXECUTIVE	29	28	8	5	9	35	35	54	18	4
ESTIMATE	3.1	3.9	37.7	48.1	18.5	49.7	2.2	1.0	6.3	
% STD ERR	2.8	5.6	6.7	45.7	62.4	45.3	30.8	48.6	0.9	8.4
ROW %	1883.0	2292.0	31281.0	4893.0	651.0	4968.0	308.0	15.0	9422.0	49638.0
COLUMN %										
BUSINESS	17	15	3	10	27	9	41	162	7	2
ESTIMATE	3.8	4.6	*	9.5	1.3	10.0	0.6	0.0	19.0	
% STD ERR	10.5	19.9	34.1	27.2	13.4	27.6	28.4	4.7	8.1	19.4
ROW %	8197.0	6337.0	31722.0	1283.0	213.0	1273.0	281.0	0.0	52168.0	99798.0
COLUMN %										
PERSONAL	8	9	3	20	47	20	46	59	2	1
ESTIMATE	8.2	8.3	31.8	1.3	0.2	1.3	0.3	0.0	*	
% STD ERR	45.7	54.9	34.8	7.3	4.4	7.1	24.1	17.4	44.8	39.1
ROW %	3510.0	217.0	4215.0	56.0	44.0	130.0	7.0	7.0	7647.0	15645.0
COLUMN %										
INSTRUCT.	13	48	12	65	105	62	320	320	8	5
ESTIMATE	22.4	1.4	26.9	0.4	0.3	0.8	0.0	0.0	48.9	
% STD ERR	19.6	1.9	4.6	0.3	0.8	0.7	0.6	2.2	6.6	6.1
ROW %	48.0	0.0	580.0	0.0	5.0	0.0	2.0	0.0	6828.0	7458.0
COLUMN %										
AERIAL AP	55	0	29	0	136	0	52	0	8	7
ESTIMATE	0.6	0.0	7.8	0.0	0.1	0.0	0.0	0.0	*	
% STD ERR	0.3	0.0	0.6	0.0	0.1	0.0	0.2	0.0	5.9	2.9
ROW %	555.0	142.0	1076.0	252.0	76.0	261.0	0.0	0.0	2458.0	4495.0
COLUMN %										
AERIAL OB	31	54	23	44	65	43	0	0	14	10
ESTIMATE	12.3	3.2	23.9	5.6	1.7	5.8	0.0	0.0	*	
% STD ERR	3.1	1.2	1.2	1.5	1.6	1.4	0.0	0.0	2.1	1.8
ROW %	45.0	15.0	205.0	78.0	9.0	82.0	0.0	0.0	1522.0	1868.0
COLUMN %										
OTHER WORK	78	45	53	33	141	32	0	0	17	15
ESTIMATE	2.4	0.8	11.0	4.2	0.5	4.4	0.0	0.0	*	
% STD ERR	0.3	0.1	0.2	0.5	0.2	0.5	0.0	0.0	1.3	0.7
ROW %	56.0	6.0	694.0	302.0	48.0	311.0	0.0	0.0	60.0	1119.0
COLUMN %										
COMPUTER	109	51	24	36	102	35	0	0	65	19
ESTIMATE	5.0	0.5	*	27.0	4.3	27.8	0.0	0.0	5.4	
% STD ERR	0.3	0.1	0.8	1.7	1.0	1.7	0.0	0.0	0.1	0.4
ROW %	633.0	155.0	4427.0	1546.0	318.0	1567.0	0.0	0.0	1624.0	8521.0
COLUMN %										

TABLE 2-28

NON-HIERARCHICAL GROUPS - PRIMARY USE VS. CAPABILITY GROUP  
(CONTINUED)

PAGE 2 OF 2

1982

	L	L, MB	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
AIR TAXI											
ESTIMATE	26	59	10	16	36	16	0	0	0	16	7
% STD ERR	7.4	1.8	*	18.1	3.7	18.4	0.0	0.0	0.0	19.1	
ROW %	3.5	1.3	4.8	9.0	6.5	8.7	0.0	0.0	0.0	1.4	3.3
COLUMN %	317.0	68.0	1458.0	817.0	259.0	888.0	18.0	18.0	15.0	2108.0	4768.0
OTHER											
ESTIMATE	41	74	18	22	44	21	156	156	187	15	9
% STD ERR	6.6	1.4	30.6	17.1	5.4	18.2	0.4	0.4	0.3	44.2	
ROW %	1.8	0.6	1.6	4.7	5.3	4.8	1.5	1.7	4.7	1.8	1.9
COLUMN %	834.0	440.0	8365.0	47.0	0.0	47.0	0.0	0.0	0.0	2431.0	10116.0
RENTAL											
ESTIMATE	26	38	9	88	0	88	0	0	0	15	7
% STD ERR	8.2	4.3	*	0.5	0.0	0.5	0.0	0.0	0.0	24.0	
ROW %	4.7	3.8	6.9	0.3	0.0	0.3	0.0	0.0	0.0	2.1	4.0
COLUMN %	1572.0	1244.0	3304.0	436.0	231.0	466.0	150.0	148.0	74.0	29269.0	35840.0
INACTIVE											
ESTIMATE	17	19	11	33	50	31	59	60	96	3	3
% STD ERR	4.4	3.5	9.2	1.2	0.6	1.3	0.4	0.4	0.2	*	
ROW %	8.8	10.8	3.6	2.5	4.7	2.6	12.9	14.2	23.1	25.1	14.0
COLUMN %	17925.0	11538.0	91654.0	17271.0	4871.0	18018.0	1166.0	1045.0	321.0	116473.0	255367.0
TOTALS											
ESTIMATE	5	8	1	3	7	3	21	22	39	1	0
% STD ERR	7.0	4.5	35.9	6.8	1.9	7.1	0.5	0.4	0.1	45.6	
ROW %	7961.0	1763.0	4506.0	27.0	144.0	32.0	36.0	15.0	15.0	67802.0	82090.0

## KEY

GROUP		GROUP	
L:	LOCALIZER	R:	RADAR ALTIMETER
MB:	MARKER BEACON	LRN:	LONG RANGE RNAV
GS:	GLIDE SLOPE	M:	MICROWAVE LANDING SYSTEM

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-29

## NON-HIERARCHICAL GROUPS - HOURS FLOWN VS. CAPABILITY GROUP

1982

PAGE 1 OF 2

	L	L, MB	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
1-49	ESTIMATE % STD ERR ROW % COLUMN %	8 25.8 3845.0 11.8	4 20.7 3251.0 12.4	23 13.5 21247.0 4.8	2 6.5 1839.0 17.3	0 2.8 523.0 31.0	2 6.4 1849.0 17.2	0 14.8 110.0 67.0	0 9.1 73.0 93.6	0 0.0 3.0 79.2	0 20.9 52080.0 2.8
50-99	ESTIMATE % STD ERR ROW % COLUMN %	7 20.3 2134.0 16.6	6 28.2 2192.0 16.3	40 23.2 18806.0 5.6	3 9.5 1727.0 16.4	1 10.7 317.0 40.9	3 9.2 1729.0 16.4	0 9.4 197.0 56.4	0 7.0 195.0 56.9	0 0.9 0.0 0.0	0 20.4 33609.0 3.8
100-149	ESTIMATE % STD ERR ROW % COLUMN %	6 11.9 845.0 25.8	6 19.0 744.0 27.5	50 18.3 9912.0 7.4	5 10.0 1458.0 18.6	0 6.5 287.0 39.0	5 9.6 1483.0 18.4	0 16.9 55.0 58.8	0 18.7 55.0 58.8	0 0.0 2.0 160.4	0 13.2 16626.0 5.6
150-199	ESTIMATE % STD ERR ROW % COLUMN %	5 4.7 1118.0 23.8	4 6.4 386.0 39.6	59 10.8 8404.0 9.3	8 8.4 2242.0 14.4	1 5.9 294.0 39.0	8 8.2 2313.0 14.2	0 4.7 72.0 99.0	0 5.3 72.0 99.0	0 0.8 1.0 350.8	0 6.5 14684.0 6.0
200-249	ESTIMATE % STD ERR ROW % COLUMN %	7 6.2 382.0 40.0	2 3.3 107.0 63.9	43 7.0 4134.0 11.8	15 13.0 1326.0 18.3	2 6.0 324.0 35.7	15 12.8 1355.0 18.0	0 6.2 12.0 88.8	0 6.9 12.0 88.8	0 0.3 0.0 0.0	0 5.8 8557.0 8.0
250-299	ESTIMATE % STD ERR ROW % COLUMN %	4 2.1 828.0 27.3	1 0.9 486.0 32.5	48 4.5 4838.0 10.8	15 7.7 1385.0 17.7	3 6.7 375.0 33.6	15 7.5 1502.0 16.9	0 1.0 61.0 87.7	0 1.1 61.0 87.7	0 0.0 0.0 0.0	0 3.4 9359.0 7.6
300-349	ESTIMATE % STD ERR ROW % COLUMN %	8 4.6 311.0 43.5	5 4.2 63.0 105.4	51 5.3 2848.0 14.5	14 8.0 1056.0 20.4	4 7.7 307.0 36.5	16 8.3 1119.0 20.1	0 5.2 30.0 123.8	0 5.8 30.0 123.8	0 0.0 30.0 123.8	0 3.7 5525.0 10.0
350-399	ESTIMATE % STD ERR ROW % COLUMN %	5 1.7 833.0 33.0	1 0.5 262.0 47.5	51 3.1 2543.0 15.7	19 6.1 1242.0 17.8	5 6.3 311.0 36.9	20 6.2 1242.0 17.8	0 2.6 48.0 95.8	0 2.9 48.0 95.8	0 9.3 43.0 100.5	0 2.2 6178.0 9.6

TABLE 2-29

NON-HIERARCHICAL GROUPS - HOURS FLOWN VS. CAPABILITY GROUP  
(CONTINUED)

PAGE 2 OF 2

1982

	L	L, MB GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
400-449	ESTIMATE % STD ERR ROW % COLUMN %	10 3.5 2038.0 17.1	4 2.3 423.0 37.4	41 2.8 7051.0 9.0	20 7.2 3752.0 9.7	5 8.4 1786.0 13.9	20 6.8 4111.0 9.4	0 4.1 216.0 45.0	0 24 1.3 8084.0 9.4	0 2.4 19541.0 5.0
450 UP	ESTIMATE % STD ERR ROW % COLUMN %	10 11.4 1572.0 17.7	2 3.7 1244.0 19.6	38 7.7 3304.0 11.5	19 21.7 436.0 33.5	9 36.7 231.0 50.4	21 22.6 466.0 31.5	1 18.5 150.0 59.4	0 31 5.2 29289.0 3.6	0 7.7 35840.0 3.3
INACTIVE	ESTIMATE % STD ERR ROW % COLUMN %	4 8.8 17925.0 5.4	3 10.8 11538.0 6.6	9 3.6 91854.0 1.6	1 2.5 17271.0 3.8	0 4.7 4871.0 7.8	1 2.6 18018.0 3.7	0 12.9 1168.0 21.0	0 81 25.1 118473.0 1.2	0 14.0 255367.0
TOTALS	ESTIMATE % STD ERR ROW %	7 * 13.8	4 * 28.3	35 * 4.7	6 * 8.5	1 * 20.6	7 * 8.4	0 * 32.6	0 * 45 * 8.4	0 * 3.2

## KEY

## GROUP

L: LOCALIZER

MB: MARKER BEACON

GS: GLIDE SLOPE

## GROUP

R: RADAR ALTIMETER

LRN: LONG RANGE RNAV

M: MICROWAVE LANDING SYSTEM

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-30

## NON-HIERARCHICAL GROUPS - AGE OF AIRCRAFT VS. CAPABILITY GROUP

1982

PAGE 1 OF 2

	L	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
0-4 YRS	7	1	48	13	2	14	1	0	28	0
ESTIMATE	19.8	7.9	25.1	37.7	26.2	37.1	*	35.8	11.5	18.6
% STD ERR	3393.0	1714.0	25303.0	5140.0	1293.0	5535.0	123.0	0.0	20604.0	58175.0
ROW %	13.8	19.5	4.6	9.9	20.5	9.6	69.1	0.0	5.1	2.9
COLUMN %										
5-9 YRS	6	3	45	9	2	9	0	0	36	0
ESTIMATE	18.9	14.9	27.6	29.8	26.5	30.7	11.8	0.0	17.7	22.0
% STD ERR	3048.0	2555.0	13113.0	2254.0	479.0	2428.0	45.0	41.0	14651.0	35687.0
ROW %	14.3	15.2	6.4	14.7	33.6	14.1	113.6	124.4	6.0	3.7
COLUMN %										
10-14 YRS	8	7	36	6	1	6	0	0	41	0
ESTIMATE	17.0	22.1	14.3	13.1	9.8	13.5	4.3	12.8	12.6	14.0
% STD ERR	3207.0	2662.0	16225.0	2097.0	999.0	2201.0	249.0	101.0	17796.0	42050.0
ROW %	13.6	13.9	5.5	14.9	20.9	14.3	43.7	73.8	5.3	3.2
COLUMN %										
15-19 YRS	7	6	38	5	2	5	0	0	42	0
ESTIMATE	17.9	23.1	17.7	12.1	20.5	12.2	21.4	31.5	15.3	16.5
% STD ERR	1483.0	1702.0	8132.0	611.0	253.0	616.0	79.0	68.0	10147.0	22087.0
ROW %	18.2	15.7	7.4	26.7	44.5	26.5	89.3	102.7	7.0	4.4
COLUMN %										
20-24 YRS	6	7	36	2	1	2	0	0	45	0
ESTIMATE	8.3	14.8	8.9	3.5	5.2	3.4	6.8	21.2	8.7	8.6
% STD ERR	1012.0	1237.0	3097.0	172.0	31.0	202.0	103.0	11.0	7527.0	13145.0
ROW %	25.8	22.4	12.4	37.8	62.7	32.9	74.6	137.9	9.0	6.5
COLUMN %										
25-29 YRS	7	9	23	1	0	1	0	0	57	0
ESTIMATE	5.6	10.7	3.4	1.0	0.6	1.1	8.8	3.4	6.5	5.1
% STD ERR	992.0	494.0	1283.0	84.0	83.0	89.0	27.0	3.0	6689.0	9571.0
ROW %	22.2	24.4	15.0	61.2	61.9	58.1	93.3	202.1	8.2	6.5
COLUMN %										
30-34 YRS	10	5	13	0	0	0	0	0	69	0
ESTIMATE	5.5	4.3	1.4	0.5	1.7	0.5	2.3	0.9	5.7	3.7
% STD ERR	1411.0	537.0	1539.0	135.0	71.0	139.0	10.0	2.0	25485.0	29114.0
ROW %	16.0	24.8	15.7	22.4	35.8	21.9	52.4	87.0	3.5	3.2
COLUMN %										
35+ YRS	4	1	5	0	0	0	0	0	87	0
ESTIMATE	7.9	4.7	1.7	0.8	1.5	0.8	0.9	0.6	21.9	11.4
% STD ERR	17925.0	11538.0	91654.0	17271.0	4871.0	18018.0	1166.0	321.0	116473.0	255367.0
ROW %	5.4	6.6	1.6	3.8	7.8	3.7	21.0	39.6	1.2	
COLUMN %										



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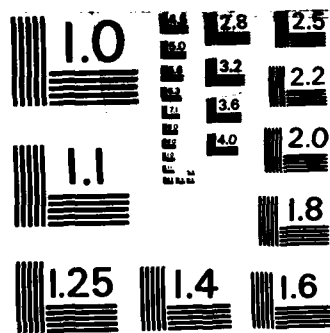
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MICROCOPY RESOLUTION TEST CHART  
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TABLE 2-30

NON-HIERARCHICAL GROUPS - AGE OF AIRCRAFT VS. CAPABILITY GROUP  
(CONTINUED)

		1982										PAGE 2 OF 2	
TOTALS	ESTIMATE % STD ERR ROW %	L	L, MB	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT	
		7	4	35	6	1	7	0	0	0	45	0	
		*	7.0	*	9.0	*	9.0	7.0	7.0	7.0	*	*	
		39.5	39.0	46.7	244.9	79.3	244.9	314.2	314.2	314.2	4.4	4.3	

## KEY

## GROUP

L: LOCALIZER

MB: MARKER BEACON

GS: GLIDE SLOPE

## GROUP

R: RADAR ALTIMETER

LRN: LONG RANGE RNAV

M: MICROWAVE LANDING SYSTEM

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-31

## NON-HIERARCHICAL GROUPS - COMPUTED AIRCRAFT TYPE VS. CAPABILITY GROUP

1982

PAGE 1 OF 2

	L	L, MB	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
FIXED WNG	8	17	11	119	84	108	108	207	207	1	0
PISTON	9.7	2.1	5.5	0.0	0.2	0.0	0.0	0.0	0.0	*	
ENG=1	44.4	15.3	4.8	0.2	3.0	0.2	3.1	1.4	4.7	58.2	32.1
1-3 SEATS	8331.0	8519.0	88013.0	2285.0	580.0	2488.0	572.0	474.0	71.0	32704.0	118008.0
FIXED WNG	7	7	1	14	31	14	31	35	95	3	0
PISTON	7.1	7.2	*	1.9	0.5	2.1	0.5	0.4	0.1	27.7	
ENG=1	46.5	73.8	72.0	13.2	11.9	13.8	49.1	45.4	22.1	28.1	48.2
4+ SEATS	317.0	745.0	13386.0	3471.0	282.0	3809.0	109.0	109.0	1.0	549.0	18489.0
FIXED WNG	39	26	3	11	43	11	75	75	350	29	0
PISTON	1.7	4.0	*	18.8	1.5	19.5	0.6	0.6	0.0	3.0	
ENG=2	1.8	6.5	14.6	20.1	5.8	20.0	9.3	10.4	0.3	0.5	7.2
1-6 SEATS	335.0	74.0	5964.0	3029.0	236.0	3049.0	107.0	107.0	55.0	649.0	10061.0
FIXED WNG	36	50	5	9	36	9	67	67	98	17	0
PISTON	3.3	0.7	*	30.1	2.3	30.3	1.1	1.1	0.5	6.5	
ENG=2	1.9	0.6	6.5	17.5	4.8	18.9	9.2	10.2	17.1	0.6	3.9
7+ SEATS	10.0	3.0	181.0	11.0	9.0	15.0	4.0	4.0	2.0	132.0	341.0
FIXED WNG	69	137	17	68	73	58	115	115	146	23	0
PISTON	2.9	0.9	*	3.2	2.6	4.4	1.2	1.2	0.6	38.7	
OTHER	0.1	0.0	0.2	0.1	0.2	0.1	0.3	0.4	0.6	0.1	0.1
1-12 SEAT	0.0	77.0	579.0	3782.0	529.0	3888.0	74.0	74.0	12.0	4.0	4490.0
FIXED WNG	0	68	24	4	25	3	71	71	183	44	0
TURBOPROP	0.0	1.7	12.9	*	11.8	*	1.6	1.6	0.3	0.1	
ENG=2	0.0	0.7	0.6	21.9	10.9	21.8	6.3	7.1	3.7	0.0	1.8
1-12 SEAT	0.0	0.0	184.0	417.0	211.0	458.0	52.0	52.0	2.0	0.0	642.0
FIXED WNG	0	0	33	15	30	13	70	70	332	0	0
TURBOPROP	0.0	0.0	28.7	*	32.9	*	8.1	8.1	0.3	0.0	
ENG=2	0.0	0.0	0.2	2.4	4.3	2.5	4.5	5.0	0.6	0.0	0.3
13+ SEATS	6.0	3.0	40.0	23.0	15.0	28.0	0.0	0.0	0.0	133.0	205.0
FIXED WNG	12	315	71	95	128	76	0	0	0	24	0
TURBOPROP	2.9	1.5	19.5	11.2	7.3	14.1	0.0	0.0	0.0	*	
OTHER	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.0	0.0	0.1	0.1
1-12 SEAT	0.0	129.0	274.0	3072.0	1728.0	3201.0	132.0	132.0	86.0	0.0	3475.0

TABLE 2-31

NON-HIERARCHICAL GROUPS - COMPUTED AIRCRAFT TYPE VS. CAPABILITY GROUP  
(CONTINUED)

1982

PAGE 2 OF 2

	L	L, MB	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
FIXED WING TURBOJET ENG=2	0 0.0 0.0 2.0	58 3.7 1.1 44.0	39 7.8 0.3 134.0	4 * 17.8 679.0	11 49.7 35.5 782.0	3 * 17.8 679.0	57 3.8 11.3 76.0	57 3.8 11.3 76.0	71 2.5 26.8 76.0	0 0.0 0.0 30.0	0 1.4 889.0
FIXED WING TURBOJET OTHER	116 0.2 0.0 173.0	102 4.9 0.4 0.0	53 15.1 0.1 37.0	12 * 3.9 0.0	6 * 16.1 2.0	12 * 3.8 5.0	77 8.5 6.5 0.0	77 8.5 6.5 0.0	77 8.5 23.7 0.0	35 3.4 0.0 5085.0	0 0.3 5279.0
ROTORCRAFT PISTON	48 3.3 1.0 782.0	0 0.0 0.0 181.0	99 0.7 0.0 354.0	0 0.0 0.0 476.0	250 0.0 0.0 352.0	161 0.1 0.0 580.0	0 0.0 0.0 3.0	0 0.0 0.0 3.0	0 0.0 0.0 1.0	1 * 4.3 2435.0	0 2.1 4430.0
ROTORCRAFT TURBINE	20 17.7 4.4 10.0	48 4.1 1.6 0.0	31 8.0 0.4 2.0	28 10.7 2.8 0.0	33 7.8 7.2 0.0	25 12.6 3.1 4.0	45 0.1 0.3 0.0	45 0.1 0.3 0.0	96 0.0 0.1 0.0	8 * 2.1 6970.0	0 1.7 6985.0
OTHER	82 0.1 0.1 17925.0	0 0.0 0.0 11538.0	38 0.0 0.0 91854.0	0 0.0 0.0 17271.0	0 0.0 0.0 4871.0	59 0.1 0.0 18018.0	0 0.0 0.0 1166.0	0 0.0 0.0 1166.0	0 0.0 0.0 1045.0	0 * 6.0 116473.0	0 2.7 255367.0
ALL CRAFT	5 7.0 5.5	6 4.5 6.9	1 35.9 1.8	3 6.8 14.1	7 1.9 23.8	3 7.1 13.3	21 0.5 30.5	21 0.5 30.5	22 0.4 34.5	1 45.6 1.3	0 209523.0 0.1

KEY

GROUP

GROUP

L: LOCALIZER

R: RADAR ALTIMETER

MB: MARKER BEACON

LRN: LONG RANGE RNAV

GS: GLIDE SLOPE

M: MICROWAVE LANDING SYSTEM

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

TABLE 2-32

## NON-HIERARCHICAL GROUPS - BASE AIRPORT REGION VS. CAPABILITY GROUP

1982											PAGE 1 OF 2	
	L	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT		
ALASKAN	ESTIMATE	37	52	25	44	84	43	86	0	8		
	% STD ERR	4.6	2.9	9.2	3.1	0.8	3.2	1.2	*	*		
	ROW %	2.1	2.0	0.8	1.5	1.3	1.4	8.4	5.6	3.2		
	COLUMN %	1273.0	418.0	5447.0	837.0	147.0	850.0	19.0	7854.0	15836.0		
CENTRAL	ESTIMATE	22	31	10	24	53	23	89	0	5		
	% STD ERR	8.0	2.6	34.4	5.3	0.9	5.4	0.1	49.6	6.2		
	ROW %	7.1	3.6	5.9	4.8	3.0	4.7	1.8	6.7	28000.0		
	COLUMN %	2134.0	1319.0	10953.0	1984.0	739.0	2058.0	155.0	11580.0	28000.0		
EASTERN	ESTIMATE	16	19	7	15	24	15	52	8	4		
	% STD ERR	7.6	4.7	39.1	7.1	2.6	7.4	0.6	41.4	11.0		
	ROW %	11.9	11.4	12.0	11.5	15.2	11.4	13.3	9.9	419.0		
	COLUMN %	88.0	3.0	248.0	50.0	0.0	50.0	0.0	51.0	0.2		
EUROPEAN	ESTIMATE	91	483	47	96	0	96	0	78	35		
	% STD ERR	16.2	0.7	*	11.9	0.0	11.9	0.0	12.2	0.0		
	ROW %	0.4	0.0	0.3	0.3	0.0	0.3	0.0	0.0	0.2		
	COLUMN %	2831.0	15146.0	3041.0	758.0	142.0	3344.0	52.0	22712.0	46419.0		
GRT LAKES	ESTIMATE	14	14	6	12	23	12	83	4	3		
	% STD ERR	6.1	5.7	32.6	8.6	1.6	7.2	0.3	48.9	18.2		
	ROW %	15.9	22.8	16.5	17.6	15.6	18.6	12.2	19.5	9325.0		
	COLUMN %	719.0	594.0	3104.0	793.0	321.0	798.0	56.0	4106.0	0.0		
NEW ENG.	ESTIMATE	29	32	14	26	42	26	93	11	7		
	% STD ERR	7.7	6.4	33.3	8.5	3.4	8.6	0.6	44.0	3.7		
	ROW %	4.0	5.1	3.4	4.6	6.6	4.4	5.9	3.5	26681.0		
	COLUMN %	1693.0	928.0	9135.0	1343.0	147.0	1421.0	57.0	13570.0	26681.0		
NTHWEST MT	ESTIMATE	19	24	7	19	58	19	54	6	4		
	% STD ERR	6.2	3.5	34.2	5.0	0.6	5.3	0.7	*	*		
	ROW %	9.3	8.0	10.0	7.8	3.0	7.9	15.7	11.7	10.4		
	COLUMN %	2555.0	1759.0	16338.0	2601.0	850.0	2839.0	144.0	14692.0	38124.0		
SOUTHERN	ESTIMATE	15	18	5	13	23	13	65	6	3		
	% STD ERR	6.7	4.6	42.9	6.6	2.2	7.4	0.4	38.5	14.9		
	ROW %	14.3	15.2	17.8	15.1	17.5	15.8	12.3	12.6	39509.0		
	COLUMN %	3529.0	1369.0	13334.0	4396.0	1147.0	4415.0	218.0	16728.0	39509.0		

TABLE 2-32

NON-HIERARCHICAL GROUPS - BASE AIRPORT REGION VS. CAPABILITY GROUP  
(CONTINUED)

1982										PAGE 2 OF 2	
	L	L, MB	L, MB, GS	L, MB, GS, R	LRN	R	M	L, MB, GS, M	LRN, M	NO GROUP	ALL CRAFT
SOUTHWEST	ESTIMATE	13	20	10	20	10	50	55	91	5	3
	% STD ERR	8.9	3.5	11.1	2.9	11.2	0.6	0.4	0.2	42.3	
	ROW %	19.7	11.9	25.5	23.8	24.5	18.7	13.6	19.3	14.4	15.5
	COLUMN %	2387.0	2112.0	17042.0	588.0	2250.0	144.0	142.0	18.0	19193.0	42985.0
WST-PACIF	ESTIMATE	15	18	14	27	14	66	67	165	5	3
	% STD ERR	5.6	4.9	5.2	1.4	5.2	0.3	0.3	0.0	44.7	
	ROW %	13.3	18.3	12.9	12.1	12.5	12.3	13.6	5.6	16.5	16.8
	COLUMN %	17925.0	11538.0	91654.0	4871.0	18018.0	1166.0	1045.0	321.0	116473.0	255367.0
TOTALS	ESTIMATE	5	6	3	7	3	21	22	39	1	0
	% STD ERR	7.0	4.5	6.8	1.9	7.1	0.5	0.4	0.1	45.6	
	ROW %	503.0	642.0	7897.0	3040.0	8157.0	359.0	359.0	156.0	1026.0	16404.0

## KEY

## GROUP

## GROUP

L: LOCALIZER

R: RADAR ALTIMETER

MB: MARKER BEACON

LRN: LONG RANGE RNAV

GS: GLIDE SLOPE

M: MICROWAVE LANDING SYSTEM

NOTE : ROWS AND COLUMNS MAY NOT SUM TO PRINTED TOTALS DUE TO ESTIMATION PROCEDURES.  
 \* STANDARD ERROR GREATER THAN 50 PERCENT.

APPENDIX A.1 FIRST MAILING COVER LETTER



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

800 Independence Ave. S.W.  
Washington, D.C. 20591

February 1983

Dear Aircraft Owner:

Enclosed is the annual General Aviation Activity and Avionics Survey for calendar year 1982. Data collected in the survey will be used for performing safety analysis, for determining the demand for air traffic facilities and services, and for assessing the impact of proposed regulatory changes on the general aviation fleet.

The survey is being mailed to owners of a random sample of less than 15 percent of all general aviation aircraft. Because the sample is random, it is possible that more than one of your aircraft may be selected or that your aircraft may be selected in successive years. This may happen in particular when there are a small number of aircraft of the type that you own. When more than one of your aircraft are selected, you will find a separate questionnaire provided for each aircraft. Please answer all questions for the aircraft identified. If you cannot determine precisely an answer to a question, please make your best estimate.

If your aircraft was not in use during the year (e.g., in storage, dismantled, destroyed, exported, etc.) please check item 5, indicating the aircraft was not flown. If the aircraft was sold prior to January 1982, it would be quite helpful if you would write a note indicating this on the survey questionnaire. If your aircraft is operated principally by another (leased, etc.), please obtain the necessary information from the operator or forward these materials to that person or firm for completion.

Please return this questionnaire in the enclosed self-addressed postpaid envelope within 10 days. Because the survey is based on a sample of general aviation aircraft, your response is especially important to the accuracy of the results. A prompt response will eliminate the need for additional follow-up contacts. A high response rate will ensure the continued use of sampling methods to collect activity and avionics data.

The data gathered from this survey will be used only to produce summary statistics and not to disclose individual operations nor to make changes to your aircraft records. We appreciate your cooperation.

Sincerely,

A handwritten signature in cursive script that reads "Nicholas L. Soldo".

Nicholas L. Soldo  
Acting Manager, Information and  
Statistics Division, AMS-200

Enclosure



APPENDIX A.2 SECOND MAILING COVER LETTER



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

800 Independence Ave., S.W.  
Washington, D.C. 20591

March 1983

Dear Aircraft Owner:

In February the Federal Aviation Administration sent aircraft owners a questionnaire as part of its program to gather statistical information on the use and characteristics of the general aviation fleet.

You were one of the aircraft owners selected at random to receive a questionnaire. As of this date, we have not received a response from you. In the event the survey questionnaire has been lost or misplaced, another copy is enclosed for your convenience in responding. If you have already responded, please disregard this notice. We appreciate your cooperation.


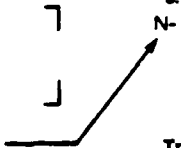
Sincerely,

A handwritten signature in cursive script that reads "Nicholas L. Soldo".

Nicholas L. Soldo  
Acting Manager, Information  
and Statistics Division, AMS-200

Enclosure

# APPENDIX A.3 SURVEY QUESTIONNAIRE

<b>1. CONTROL NUMBER</b>  <div style="text-align: center;">   <b>U.S. Department of Transportation</b>  <b>Federal Aviation Administration</b> </div>	<b>GENERAL AVIATION ACTIVITY AND AVIONICS SURVEY</b> <b>(As of December 31, 1982)</b>	Form Approved OMB No 2120-0060																																																																																									
<p>This report is authorized by Section 311 of the Federal Aviation Act of 1958 as amended. While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate and timely. Information collected in this survey will be used for statistical purposes only and not to disclose individual aircraft activity.</p>																																																																																											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>2. a.</b> <input type="checkbox"/> "X" here if this aircraft is an ultralight and GO TO QUESTION 4.</p> <p><b>b.</b> <input type="checkbox"/> "X" here if you operate your aircraft principally as an air carrier (under FAR 121 or 127). If so, DO NOT complete remainder of form. However please return to address shown below.</p> </div> <div style="width: 50%; text-align: center;"> <p><b>3. AIRCRAFT CHARACTERISTICS</b></p>  <p><b>INSTRUCTIONS:</b> Please answer questions for the aircraft identified at right. Mail the completed questionnaire in the enclosed postage paid envelope to:</p> <p style="text-align: center;"> <b>Transportation Systems Center—GAF</b>  <b>Kendall Square</b>  <b>Cambridge, Massachusetts 02142</b> </p> </div> </div>																																																																																											
<p><b>4. What were the total lifetime airframe hours as of December 31, 1982?</b> _____</p> <p><b>5. Was aircraft flown in Calendar Year 1982?</b> (Check one)          1 <input type="checkbox"/> Yes      2 <input type="checkbox"/> No (Skip to question 11)</p> <p><b>6. Did you own this aircraft for the entire year of 1982?</b>          1 <input type="checkbox"/> Yes      2 <input type="checkbox"/> No          If "No," include previous owner's hours for 1982 in your estimates below.</p> <p><b>7. How many hours did this aircraft fly in each of the categories below during Calendar Year 1982?</b> <span style="float: right;">HOURS</span></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;"><b>EXECUTIVE/CORPORATE TRANSPORTATION</b>—Company flying with a professional crew transporting company personnel, guests, and cargo. .... a.</td> <td style="width: 20%; text-align: center;">_____</td> </tr> <tr> <td><b>BUSINESS TRANSPORTATION</b>—Individual use of an aircraft for business transportation. .... b.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>PERSONAL</b>—Individual flying for personal reasons. .... c.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>INSTRUCTIONAL</b>—Flying with or under the supervision of a flight instructor (excludes proficiency flying). .... d.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>AERIAL APPLICATION</b>—Agriculture, health, forestry, cloud seeding, firefighting, insect control, etc. .... e.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>AERIAL OBSERVATION</b>—Aerial mapping/photography, survey, patrol, fish spotting, search and rescue, hunting, highway traffic advisory, sightseeing (not Part 135), etc. .... f.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>OTHER WORK USE</b>—Construction work (not Part 135), helicopter hoist, aerial advertising, towing gliders, parachuting, etc. .... g.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>COMMUTER AIR CARRIER</b>—Performs at least five scheduled round trips per week between two or more points or carries mail. .... h.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>DEMAND AIR TAXI</b>—All Part 135 passenger and cargo operations, including charter and excluding commuter air carrier. .... i.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>OTHER</b>—Experimentation, R &amp; D testing, demonstrations, government, air shows, air racing, etc. .... j.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>AIRCRAFT RENTAL BUSINESS</b>—Commercial flying club, leased and rental aircraft activity (If you know the purpose of flight, assign hours to categories above. If not, enter hours here). .... k.</td> <td style="text-align: center;">_____</td> </tr> </table>	<b>EXECUTIVE/CORPORATE TRANSPORTATION</b> —Company flying with a professional crew transporting company personnel, guests, and cargo. .... a.	_____	<b>BUSINESS TRANSPORTATION</b> —Individual use of an aircraft for business transportation. .... b.	_____	<b>PERSONAL</b> —Individual flying for personal reasons. .... c.	_____	<b>INSTRUCTIONAL</b> —Flying with or under the supervision of a flight instructor (excludes proficiency flying). .... d.	_____	<b>AERIAL APPLICATION</b> —Agriculture, health, forestry, cloud seeding, firefighting, insect control, etc. .... e.	_____	<b>AERIAL OBSERVATION</b> —Aerial mapping/photography, survey, patrol, fish spotting, search and rescue, hunting, highway traffic advisory, sightseeing (not Part 135), etc. .... f.	_____	<b>OTHER WORK USE</b> —Construction work (not Part 135), helicopter hoist, aerial advertising, towing gliders, parachuting, etc. .... g.	_____	<b>COMMUTER AIR CARRIER</b> —Performs at least five scheduled round trips per week between two or more points or carries mail. .... h.	_____	<b>DEMAND AIR TAXI</b> —All Part 135 passenger and cargo operations, including charter and excluding commuter air carrier. .... i.	_____	<b>OTHER</b> —Experimentation, R & D testing, demonstrations, government, air shows, air racing, etc. .... j.	_____	<b>AIRCRAFT RENTAL BUSINESS</b> —Commercial flying club, leased and rental aircraft activity (If you know the purpose of flight, assign hours to categories above. If not, enter hours here). .... k.	_____	<p><b>8. Of the total hours flown by this aircraft during Calendar Year 1982, what percentage was flown in each of the following conditions? (a, b, c, and d should add to 100%).</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Instrument Meteorological Condition (IMC) Day. .... a.</td> <td style="width: 20%; text-align: center;">_____</td> </tr> <tr> <td>Instrument Meteorological Condition (IMC) Night. .... b.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Visual Meteorological Condition (VMC) Day. .... c.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Visual Meteorological Condition (VMC) Night. .... d.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td><b>TOTAL</b></td> <td style="text-align: center;">_____</td> </tr> </table> <p><b>9. Was this aircraft flown on an Instrument Flight Plan in 1982?</b>          1 <input type="checkbox"/> Yes      2 <input type="checkbox"/> No          If "Yes," how many hours were flown on an Instrument Flight Plan? _____</p> <p><b>10. What was this aircraft's average rate of fuel consumption (gal./hr.) during 1982?</b> (Report whole gals. only) _____</p> <p><b>11. In what state (Abbreviation) or foreign country was this aircraft based as of December 31, 1982?</b> _____</p> <p><b>12. AVIONICS EQUIPMENT CAPABILITY</b> ( "X" ALL boxes that reflect this aircraft's current capability. If none, check the last box in each group.)</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2"><b>VHF COMMUNICATIONS EQUIPMENT</b></td> </tr> <tr> <td style="width: 80%;">VHF Communications System:</td> <td style="width: 20%;"></td> </tr> <tr> <td>360 Channels or less. .... a.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>720 Channels or more. .... b.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>More than one comm. system. .... c.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>No VHF Communications Equipment. .... d.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td colspan="2"><b>TRANSPONDER EQUIPMENT</b></td> </tr> <tr> <td>4096 Code. .... e.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Altitude Encoding Equipment. .... f.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>No Transponder Equipment. .... g.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td colspan="2"><b>NAVIGATION EQUIPMENT</b></td> </tr> <tr> <td>VOR Receiver:</td> <td></td> </tr> <tr> <td>100 Channels. .... h.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>200 Channels. .... i.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>More than one VOR Receiver. .... j.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Automatic Direction Finder (ADF). .... k.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Distance Measuring Equipment (DME). .... l.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Area Navigation Equipment (RNAV). .... m.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Long Range Nav. (Doppler, INS, Other). .... n.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Flight Director. .... o.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Radar Altimeter. .... p.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Flight Management Computer. .... q.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>No Navigation Equipment. .... r.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td colspan="2"><b>ILS RECEIVING EQUIPMENT</b></td> </tr> <tr> <td>Localizer. .... s.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Marker Beacon. .... t.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Glide Slope. .... u.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Microwave Landing System. .... v.</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>No ILS Receiving Equipment. .... w.</td> <td style="text-align: center;">_____</td> </tr> </table>	Instrument Meteorological Condition (IMC) Day. .... a.	_____	Instrument Meteorological Condition (IMC) Night. .... b.	_____	Visual Meteorological Condition (VMC) Day. .... c.	_____	Visual Meteorological Condition (VMC) Night. .... d.	_____	<b>TOTAL</b>	_____	<b>VHF COMMUNICATIONS EQUIPMENT</b>		VHF Communications System:		360 Channels or less. .... a.	_____	720 Channels or more. .... b.	_____	More than one comm. system. .... c.	_____	No VHF Communications Equipment. .... d.	_____	<b>TRANSPONDER EQUIPMENT</b>		4096 Code. .... e.	_____	Altitude Encoding Equipment. .... f.	_____	No Transponder Equipment. .... g.	_____	<b>NAVIGATION EQUIPMENT</b>		VOR Receiver:		100 Channels. .... h.	_____	200 Channels. .... i.	_____	More than one VOR Receiver. .... j.	_____	Automatic Direction Finder (ADF). .... k.	_____	Distance Measuring Equipment (DME). .... l.	_____	Area Navigation Equipment (RNAV). .... m.	_____	Long Range Nav. (Doppler, INS, Other). .... n.	_____	Flight Director. .... o.	_____	Radar Altimeter. .... p.	_____	Flight Management Computer. .... q.	_____	No Navigation Equipment. .... r.	_____	<b>ILS RECEIVING EQUIPMENT</b>		Localizer. .... s.	_____	Marker Beacon. .... t.	_____	Glide Slope. .... u.	_____	Microwave Landing System. .... v.	_____	No ILS Receiving Equipment. .... w.	_____
<b>EXECUTIVE/CORPORATE TRANSPORTATION</b> —Company flying with a professional crew transporting company personnel, guests, and cargo. .... a.	_____																																																																																										
<b>BUSINESS TRANSPORTATION</b> —Individual use of an aircraft for business transportation. .... b.	_____																																																																																										
<b>PERSONAL</b> —Individual flying for personal reasons. .... c.	_____																																																																																										
<b>INSTRUCTIONAL</b> —Flying with or under the supervision of a flight instructor (excludes proficiency flying). .... d.	_____																																																																																										
<b>AERIAL APPLICATION</b> —Agriculture, health, forestry, cloud seeding, firefighting, insect control, etc. .... e.	_____																																																																																										
<b>AERIAL OBSERVATION</b> —Aerial mapping/photography, survey, patrol, fish spotting, search and rescue, hunting, highway traffic advisory, sightseeing (not Part 135), etc. .... f.	_____																																																																																										
<b>OTHER WORK USE</b> —Construction work (not Part 135), helicopter hoist, aerial advertising, towing gliders, parachuting, etc. .... g.	_____																																																																																										
<b>COMMUTER AIR CARRIER</b> —Performs at least five scheduled round trips per week between two or more points or carries mail. .... h.	_____																																																																																										
<b>DEMAND AIR TAXI</b> —All Part 135 passenger and cargo operations, including charter and excluding commuter air carrier. .... i.	_____																																																																																										
<b>OTHER</b> —Experimentation, R & D testing, demonstrations, government, air shows, air racing, etc. .... j.	_____																																																																																										
<b>AIRCRAFT RENTAL BUSINESS</b> —Commercial flying club, leased and rental aircraft activity (If you know the purpose of flight, assign hours to categories above. If not, enter hours here). .... k.	_____																																																																																										
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Instrument Meteorological Condition (IMC) Night. .... b.	_____																																																																																										
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No ILS Receiving Equipment. .... w.	_____																																																																																										

## APPENDIX B

### SAMPLE DESIGN

#### B.1 SAMPLE FRAME AND SIZE

The Aircraft Registration Master File, maintained by the FAA Mike Monroney Aeronautical Center in Oklahoma City, provided the sample frame, the list of aircraft from which the sample was selected, for the survey. This file is the official record of registered civil aircraft in the U.S., containing one record per aircraft.

Between the 1977 and 1978 survey cycles several changes occurred to this file which had an impact on the sample population and frame, and ultimately on the survey results. In January 1978, FAA implemented a new procedure for maintaining the file, known as triennial revalidation. Instead of requiring all owners to revalidate and update their aircraft registration annually, FAA required revalidation for only those owners who had not contacted the registry for three years. The less frequent updating affected the accuracy of the file and its representativeness. Two major consequences for the survey results are discussed below:

- 1) The accuracy of owners' addresses deteriorated, causing the percentage of questionnaires returned by the post office to almost triple from 1977 to 1982. This partially accounted for the lower survey response rates experienced since 1977.
- 2) The file contained a residue of aircraft which under the old revalidation system would have been deregistered and purged from the file, but remained under the new system. Consequently, the population counts were inflated resulting in artificially large increases in the estimates of the number of active general aviation aircraft from 1977 to 1978, and from 1978 to 1979.

Also during this period the entire Aircraft Registration System was installed on a new computer system. At the same time, FAA modified many of the updating and processing procedures. It is quite possible that these changes affected the registration file, although it is not known in what way.

Finally, new legislation required two categories of aircraft, formerly ineligible, to be registered with the U.S. Registry, namely:

- 1) aircraft owned by individual citizens of foreign countries who are permanent residents of the U.S., and
- 2) aircraft owned by non-U.S. corporations which are organized and doing business under U.S. law as long as the aircraft are based and used primarily in the U.S.

The definition of a registered general aviation aircraft changed from 1977 to 1978 to include the two new groups. It is estimated that these aircraft comprise less than one half percent of the general aviation fleet.

Thus, these changes discussed above affected the contents of the Aircraft Registration Master File and consequently the survey results. While it is difficult to quantify the effects of the changes, FAA estimates that they caused the survey results to overestimate population and hours flown by not more than five percent.

All aircraft identified as general aviation in the file according to the definition in Section 1.2.1 comprise the sample frame with the following exceptions:

- 1) Aircraft registered to dealers.
- 2) Aircraft with "Sale Reported" or "Registration Pending" appearing in the record instead of the owner's name.
- 3) Aircraft with a known inaccurate owner's address.
- 4) Aircraft with missing state of registration, aircraft make-model-series code, or aircraft type information.

For calendar year 1982, the sample frame consisted of 255,367 general aviation aircraft records from which 26,067 records were sampled, yielding a 10.2 percent sample. Table B-1 and Figure B.1 show the distribution of the sample compared to that of the population by aircraft type. Table B-2 and Figure B.2 show similar distributions by FAA region. (See Appendix C for the FAA regional map.) These displays clearly demonstrate the disproportionality of the sample to the population, an intended result of the sample design to gain efficiency and to control errors.

## B.2 DESCRIPTION OF SAMPLE DESIGN

The sample design employed was a stratified, systematic design from a random start. The sample was selected from a two-way stratified frame matrix. The two stratification criteria were:

- 1) State or territory of aircraft registration.
- 2) A variable called the make-model index constructed from a combination of the computed aircraft type, the Service Difficulty Reporting (SDR) aircraft manufacturer/model group, and the FAA make-model-series of the aircraft.

The 54 levels of the state criterion and the 289 levels of the make-model index yielded a matrix of 54 by 289 or 15,606 cells (strata) among which the frame was divided for sampling.

The FAA's primary requirement was for estimates of mean annual flight hours per aircraft, necessitating optimal determination of sample sizes based on flight hour variation by state and by make-model index, and not on population. Hence, the sample was not proportional to size, and a sampling fraction was determined for each cell with a non-zero population. Sampling was then performed systematically from a random start within individual cells, yielding a final sample size of 26,067 general aviation aircraft.

Initially, each aircraft in the sample was given a weight which was the inverse of its cell's sampling fraction, which corresponded to the number of aircraft in the sample frame represented by that aircraft. When all responses to the survey

TABLE B-1. SAMPLE AND POPULATION DISTRIBUTIONS BY AIRCRAFT TYPE

TYPE	POPULATION	SAMPLE SIZE	SAMPLE AS % OF POPULATION
<b>Fixed Wing</b>			
<b>Piston</b>			
1 engine, 1-3 seats	82,090	9,989	12.2
1 engine, 4+ seats	118,008	9,216	7.8
2 engines, 1-6 seats	18,469	1,588	8.6
2 engines, 7+ seats	10,061	1,933	19.2
Other Piston	341	201	58.9
<b>Turboprop</b>			
2 engines, 1-12 seats	4,490	251	5.6
2 engines, 13+ seats	643	59	9.2
Other Turboprop	205	72	35.1
<b>Turbojet</b>			
2 engines	3,475	149	4.3
Other Turbojet	889	95	10.7
<b>Rotorcraft</b>			
Piston	5,279	1,149	21.8
Turbine	4,432	533	12.0
<b>Other</b>	6,985	832	11.9
<b>TOTAL</b>	<b>255,367</b>	<b>26,067</b>	<b>10.2</b>

TABLE B-2. SAMPLE AND POPULATION DISTRIBUTIONS BY REGION OF REGISTERED AIRCRAFT

REGION	APPROXIMATE POPULATION	SAMPLE SIZE	SAMPLE AS % OF POPULATION
Alaskan	7,873	1,337	17.0
Central	15,767	1,644	10.4
Eastern	28,168	2,998	10.6
European (Foreign)	527	130	24.7
Great Lakes	46,376	3,955	8.5
New England	9,271	1,721	18.6
Northwest Mountain	26,675	2,474	9.3
Southern	38,498	4,428	11.5
Southwestern	39,520	2,394	6.1
Western-Pacific	42,647	4,986	11.7
<b>TOTAL</b>	<b>255,367</b>	<b>26,067</b>	<b>10.2</b>

Note: Column summations may differ from printed totals due to estimation procedures.

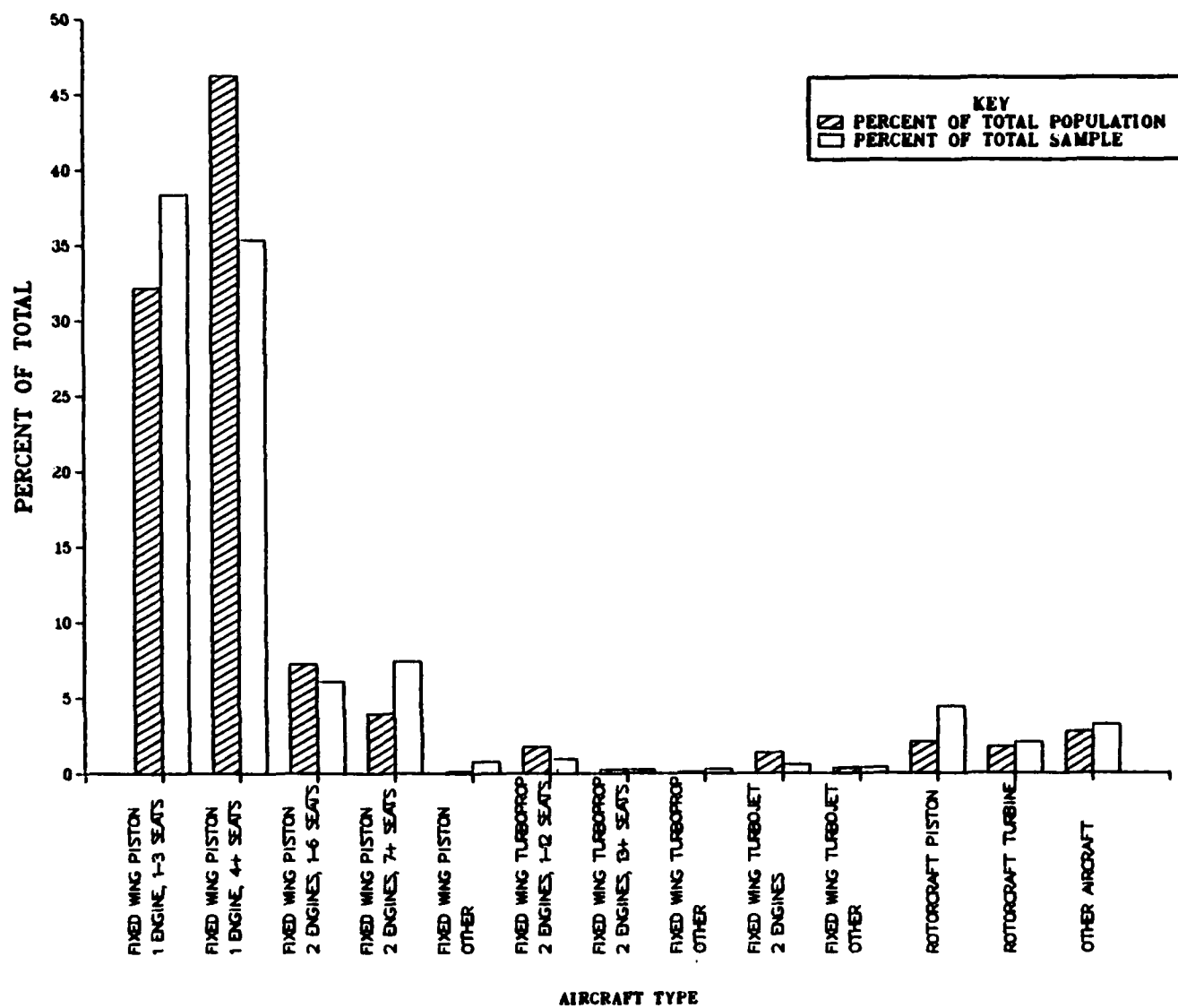


FIGURE B-1. COMPARISON OF POPULATION AND SAMPLE DISTRIBUTIONS BY AIRCRAFT TYPE

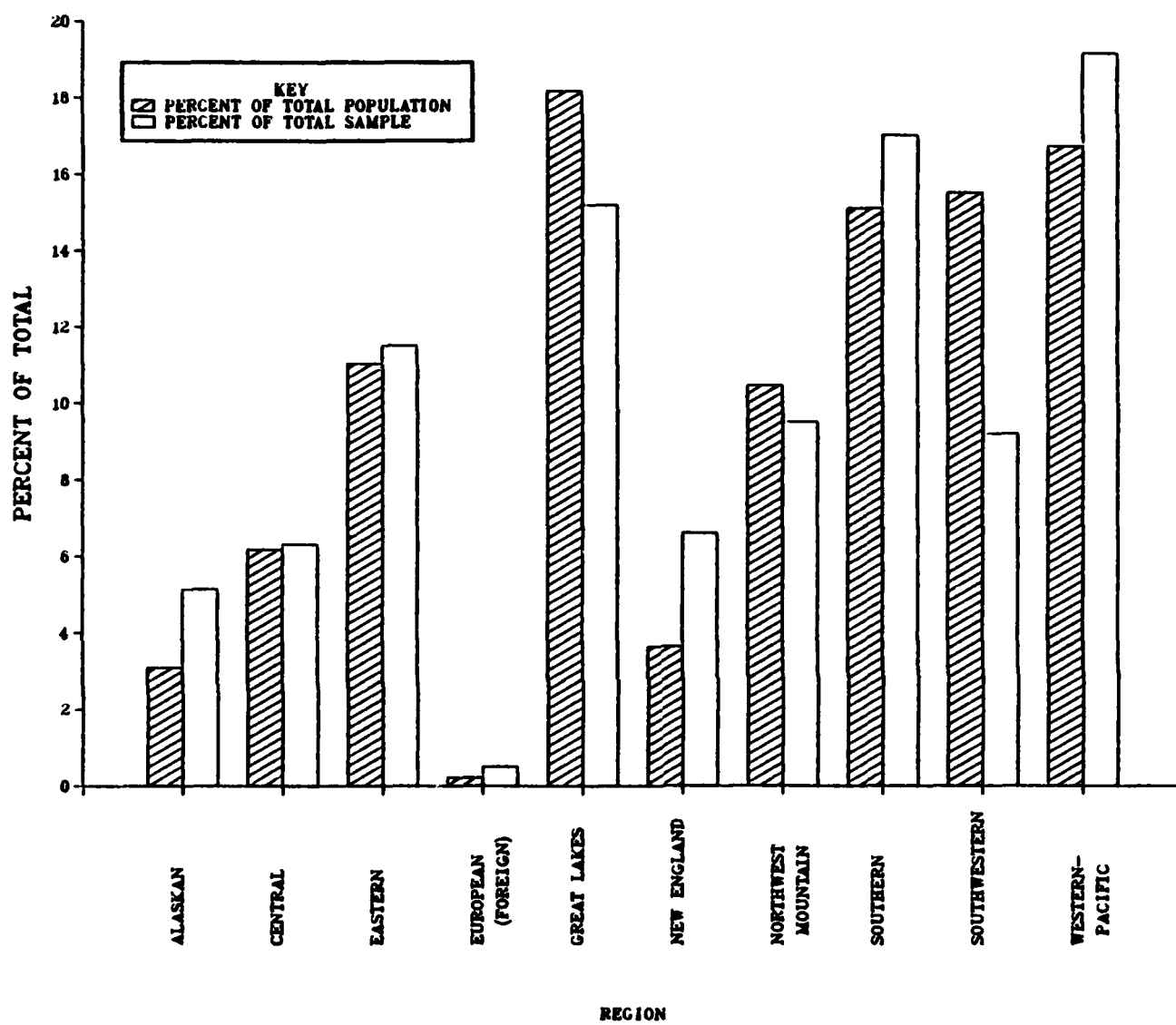


FIGURE B-2. COMPARISON OF POPULATION AND SAMPLE DISTRIBUTIONS BY REGION OF REGISTERED AIRCRAFT.

were tallied, each weight was adjusted according to the response rate for the cell, counting an aircraft for which no survey questions were answered as a non-respondent and an aircraft for which at least one question was answered as a respondent. The weight adjustment is described below:

- 1) Non-respondents' weights were changed to zero.
- 2) The weights of all responding aircraft were adjusted uniformly by dividing the initial weight by the response rate for the cell.

This method of weight adjustment has several attributes. It actually incorporates the response rates into the final weights and simplifies estimation procedures.

### B.3 ERROR

Errors associated with estimates derived from sample survey results fall into two categories: sampling and non-sampling errors.<sup>1</sup> Sampling errors occur because the estimates are based on a sample — not the entire population. Non-sampling errors arise from a number of sources such as non-response, inability or unwillingness of respondents to provide correct information, differences in interpretation of questions, mistakes in recording or coding the data obtained, and others. The following sections discuss the two types of errors.

#### B.3.1 Sampling Error

In a designed survey, the sampling error associated with an estimate is generally unknown, but a measurable quantity known as the standard error is often used as a guide to the magnitude of sampling error. The standard error measures the variation which would occur among the estimates from all possible samples of the same design from the same population. It thus measures the precision with which an estimate approximates the average result of all possible samples or the result of a survey in which all elements of the population were sampled.

Through sample design techniques, the statistician can control the sizes of standard errors on a few key variables, known as design variables, in the survey. In the General Aviation Activity and Avionics Survey, the design variables were the mean annual hours flown per aircraft by aircraft type, by aircraft manufacturer/model group, and by state of aircraft registration. The sample was designed to produce standard errors on these variables at levels specified by the FAA. No controls were placed on the standard errors of the non-design variables.

Thus, every estimate resulting from a sample survey, whether it be for a design or non-design variable, has sampling error associated with it. The user of survey results must consider this error along with the point estimate itself when making inferences or drawing conclusions about the sample population. A large standard error relative to an estimate indicates lack of precision and, inversely, a small standard error indicates precision. To facilitate the comparison of estimates and their errors, the tables in Section 2 of this publication display standard errors for all estimated quantities. In some cases, the tables contain the percent standard error, which is the standard error multiplied by one hundred divided by the corresponding estimate.

<sup>1</sup>Standards for Discussion and Presentation of Errors in Data, U.S. Department of Commerce, Bureau of the Census, (Washington, DC, 1974), pp. 11-14



The paragraphs below explain the proper interpretation and use of the errors.

An estimate and its standard error make it possible to construct an interval estimate with prescribed confidence that the interval will include the average value of the estimate from all possible samples of the population. Table B-3 below shows selected interval widths and their corresponding confidence.

TABLE B-3. CONFIDENCE OF INTERVAL ESTIMATES

WIDTH OF INTERVAL	APPROXIMATE CONFIDENCE THAT INTERVAL INCLUDES AVERAGE VALUE
1 Standard error	68%
2 Standard errors	95%
3 Standard errors	99%

As an example, from Table 2-6 a 95 percent confidence interval for the number of active rotorcraft with piston engines would be  $2419 \pm 2(178)$  or (2063, 2775). One would say that the number of active rotorcraft with piston engines lies somewhere between 2063 and 2775 with 95 percent confidence.

#### B.3.2 Non-Sampling Error

Non-sampling error can be reduced through survey design, although the amount of reduction is difficult, if not impossible, to quantify in any given design. Nevertheless, through controlled experiments, various techniques have been identified which limit non-sampling error. Several of these techniques were incorporated into the design of the general aviation survey and are itemized below:

- o A second mailing to non-respondents was conducted in addition to the original mailing to improve the response rate, since a low response rate is a major cause of non-sampling error. Sixty-eight percent of those aircraft sampled responded to a least one question of the survey. This represents an increase over the 61 percent response obtained in 1981. However, the 1982 rate marks a decline over the 80 percent response achieved in 1977, the first year of the survey. Possible causes of the decrease include:
  - 1) The deterioration of the currency of aircraft owners' addresses in the Aircraft Registration Master File, the sample frame. This increased the percentage of questionnaires returned undelivered by the postmaster from around 1.6% in 1977 to 3.2% in 1978 to 6.8% in 1981, hence decreasing the response rate. The percentage of postmaster returns for 1982 (4.6%) marks a decline from the 1981 level. This explains in part the increase in the 1982 survey response rate.

- 2) Repeated sampling of aircraft in two and possibly three or four successive years. Due to the design of the sample to achieve specified precision in estimates for states and manufacturer/model groups of aircraft, it is impossible to avoid sampling some of the same aircraft in consecutive years. Owners of such aircraft may have been less willing to respond in 1982 than in previous years.

Tables B-4 and B-5 show the response rates broken down by FAA region and aircraft type, respectively. The lowest response rate for any region was 48% for the European (Foreign) region due to mail delivery difficulties. The Alaskan Region rate was low at 59% for similar reasons. These two regions together, however, represented only about 3% of the U.S. general aviation fleet. The fixed wing twin engine piston aircraft with 7 or more seats had the lowest response rate (at 52%) of any of the aircraft types but these aircraft represented less than 4% of the fleet.

- o The survey questionnaire was designed and tested to minimize misinterpretation of questions by the aircraft owners.
- o To assure the owners of the confidentiality of their responses, the questionnaire cover letter informed them that the intended use of the responses was "only to produce summary statistics and not to disclose individual operations nor to make changes to your aircraft records."<sup>1</sup>
- o Comprehensive editing procedures insured the accuracy of the data transcription to machine readable form and the internal consistency of responses.
- o The official and most accurate source of information available on the general aviation fleet, the FAA Aircraft Registration Master File, was used as the sampling frame.

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<sup>1</sup>See Appendix A.1.

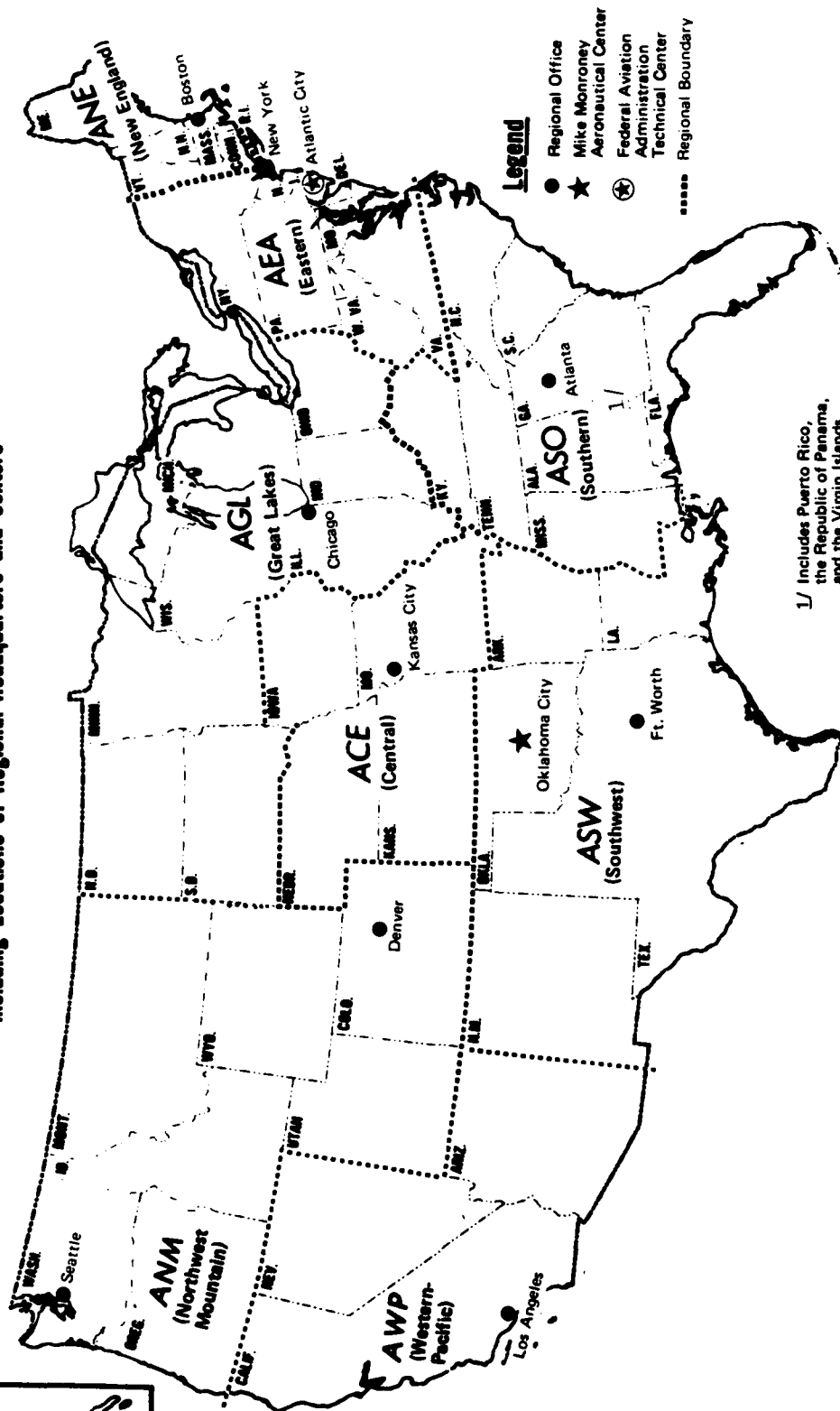
TABLE B-4. RESPONSE RATES BY REGION

REGION	RESPONSE RATE (%)	REGION	RESPONSE RATE (%)
Alaskan	59	New England	71
Central	73	Northwest Mountain	65
Eastern	72	Southern	63
European (Foreign)	48	Southwestern	64
Great Lakes	75	Western-Pacific	67
		TOTAL	68

TABLE B-5. RESPONSE RATES BY AIRCRAFT TYPE

AIRCRAFT TYPE	RESPONSE RATE (%)	AIRCRAFT TYPE	RESPONSE RATE (%)
Fixed Wing			
Piston		Turbojet	
1 engine, 1-3 seats	71	2 engines	68
1 engine, 4+ seats	70	Other	55
2 engines, 1-6 seats	63		
2 engines, 7+ seats	52	Rotorcraft	
Other	55	Piston	64
Turboprop		Turbine	68
2 engines, 1-12 seats	67	Other	69
2 engines, 13+ seats	64		
Other	61	TOTAL	68

**U.S. DEPARTMENT OF TRANSPORTATION**  
**Federal Aviation Administration**  
**FAA REGIONAL BOUNDARIES**  
**Including Locations of Regional Headquarters and Centers**



C-1/C-2

## APPENDIX D

### SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE

THE FOLLOWING TABLE SHOWS THE CORRESPONDENCE BETWEEN THE SERVICE DIFFICULTY REPORTING (SDR) AIRCRAFT GROUP NAMES AND THE FAA AIRCRAFT MANUFACTURER/MODEL/SERIES (MMS) CODES AND APPEARS IN ALPHABETICAL ORDER BY SDR NAME. THE SDR NAMES COMBINE MMS CODES FOR AIRCRAFT OF SIMILAR DESIGN INTO GROUPS FOR ANALYTIC PURPOSES. THE TABLE CONTAINS ENTRIES FOR ALL THE SDR NAMES APPEARING IN SEVERAL OF THE TABLES IN THE BODY OF THIS REPORT.

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES

SDR	FAA	SDR	FAA	SDR	FAA
ADAMS A50S	0050101	ARCTICS1A	1850208	BAC 111	1480204
ADAMS A50S	0050105	ARCTICS1A	1850210	BAC 111	1480208
AEROSPAS355	8680805	ARCTICS1A	1850212	BAC 111	1480210
AEROSPAS355	8680806	ARCTICS1A	1850214	BAC 111	1480218
AEROSPSA316	8680207	ARCTICS1A	1850218	BAC 111	1480221
AEROSPSA316	8680209	ARCTICS1B1	1850302	BAC 111	1480264
AEROSPSA316	8680512	ARCTICS1B1	1850304	BAC 111	1480268
AEROSPSA316	8680513	ARCTICS1B1	1850306	BAC 111	1480270
AEROSPSA316	8680515	ARCTICS1B1	1850308	BAC 111	1480273
AEROSPSA316	8630605	ARCTICS1B1	1850310	BAC 111	1480277
AEROSPSA316	8680815	ARCTICS1B1	1850312	BAC 111	1480283
AGUSTAA109	0250109	ARONCA15	0191202	BALWKSFIREFY	1050100
AIRPTSA	0144202	ARONCA15	0191204	BALWKSFIREFY	1050101
AIRPTSA	0144204	ARONCA58	0191002	BALWKSFIREFY	1050103
AIRPTSA	0144206	ARONCA58	0191004	BALWKSFIREFY	1050104
AIRPTSA	1850102	ARONCA58	0191006	BALWKSFIREFY	1050107
AIRPTSA	1850104	ARONCA58	0191008	BALWKSFIREFY	1050109
AIRPTSA	1850106	ARONCA58	0191010	BALWKSFIREFY	10501A9
AIRPTSA	1850108	ARONCA58	0191012	BEAGLEB206	1121223
AIRPTSA	1850110	ARONCA65	0190710	BEAGLEB206	1121224
AIRPTSA	1850112	ARONCA65	0190802	BEECH 100	*100
AIRPTSA	1850114	ARONCA65	0190902	BEECH 100	1152915
AIRPTSA	1850116	ARONCA65	0190904	BEECH 100	1152916
AIRPTSA	1850118	ARONCA65	0190906	BEECH 100	1152917
AIRPTSA	1850120	ARONCA65	0190908	BEECH 100	1152919
AIRPTSA	1850122	ARONCA65	0190910	BEECH 17	1150502
AIRPTSA	4570424	ARONCA65	0190912	BEECH 17	1150504
AIRPTSA	4570602	ARONCA65	0190914	BEECH 17	1150506
AIRPTSA	4570604	ARONCA65	0190916	BEECH 17	1150508
AIRPTSA	4570606	ARONCA65	0190918	BEECH 17	1150510
AIRPTSA	4570608	ARONCA65	0191014	BEECH 17	1150512
AIRPTSA	4570610	ARONCA65	0191016	BEECH 17	1150514
AIRPTSA	4570612	ARONCAC3	0190302	BEECH 17	1150516
AIRPTSA	4570614	ARONCAC3	0190304	BEECH 17	1150518
AIRPTSA	4570616	AVIAN FALCON	0900102	BEECH 17	1150520
AIRPTSA	4570618	AVTANWSKYHWK	0900104	BEECH 17	1150522
AIRPTSA	4570620	AYRES S2	0143002	BEECH 17	1150524
AIRPTSA	4570622	AYRES S2	0143004	BEECH 17	1150526
AIRPTSA	4570624	AYRES S2	0143006	BEECH 17	1150528
AIRSPC18	0440102	AYRES S2	0143008	BEECH 17	1150530
AIRSPC18	0440104	AYRES S2	0143010	BEECH 17	1150532
AIRSPC18	9200202	AYRES S2	0143012	BEECH 17	1150534
AIRTRCAT300	0390101	AYRES S2	0143022	BEECH 17	1150536
AIRTRCAT300	0390103	AYRES S2	0970100	BEECH 17	1150538
AIRTRCAT300	0390104	AYRES S2	0970101	BEECH 17	1150540
AIRTRCAT400	0390202	AYRES S2	0970104	BEECH 17	1150542
AIRTRCAT400	0390203	AYRES S2	0970105	BEECH 17	1150544
AMD FALC10	*FALC10	AYRES S2	0970107	BEECH 17	1150546
AMD FALC10	2730101	AYRES S2	0970202	BEECH 17	1150548
AMD FALC20	*FALC20	AYRES S2	0970210	BEECH 17	1150550
AMD FALC20	2720302	AYRES S2	0970215	BEECH 17	1150552
AMD FALC20	2720303	AYRES S2	7630202	BEECH 17	1150554
AMD FALC20	2720304	AYRES S2	7630203	BEECH 17	1150556
AMD FALC20	2720305	AYRES S2	8380202	BEECH 17	1150558
AMD FALC20	2720306	AYRES S2	8380204	BEECH 17	1150560
AMD FALC20	2730103	AYRES S2	8380206	BEECH 17	1150562
AMD FALC20	2730108	AYRES S2	8380302	BEECH 17	1150564
AMD FALC50	2730108	AYRES S2	8330306	BEECH 17	*18
AMTR TMK	4220120	AYRES S2T	0970106	BEECH 18	1150202
ARCTICS1A	1850202	BAC 111	*111	BEECH 18	1150204
ARCTICS1A	1850204	BAC 111	1480202	BEECH 18	1150602
ARCTICS1A	1850208				

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
BEECH 18	1150604	BEECH 18	1150202	BEECH 18	1151050
BEECH 18	1150702	BEECH 18	1150204	BEECH 18	1151102
BEECH 18	1150704	BEECH 18	1150802	BEECH 18	* 18
BEECH 18	1150708	BEECH 18	1150804	BEECH 18	1150202
BEECH 18	1150708	BEECH 18	1150702	BEECH 18	1150204
BEECH 18	1150710	BEECH 18	1150704	BEECH 18	1150802
BEECH 18	1150712	BEECH 18	1150706	BEECH 13	1150604
BEECH 18	1150802	BEECH 18	1150708	BEECH 18	1150702
BEECH 18	1150804	BEECH 18	1150710	BEECH 18	1150704
BEECH 18	1150806	BEECH 18	1150712	BEECH 18	1150706
BEECH 18	1150808	BEECH 18	1150802	BEECH 18	1150708
BEECH 18	1150902	BEECH 18	1150804	BEECH 18	1150710
BEECH 18	1150904	BEECH 18	1150806	BEECH 18	1150712
BEECH 18	1150906	BEECH 18	1150808	BEECH 18	1150802
BEECH 18	1150907	BEECH 18	1150902	BEECH 18	1150804
BEECH 18	1150908	BEECH 18	1150904	BEECH 18	1150806
BEECH 18	1150909	BEECH 18	1150906	BEECH 18	1150808
BEECH 18	1150910	BEECH 18	1150907	BEECH 18	1150902
BEECH 18	1150911	BEECH 18	1150908	BEECH 18	1150904
BEECH 18	1150912	BEECH 18	1150909	BEECH 18	1150906
BEECH 18	1150913	BEECH 18	1150910	BEECH 18	1150907
BEECH 18	1150914	BEECH 18	1150911	BEECH 18	1150908
BEECH 18	1150916	BEECH 18	1150912	BEECH 18	1150909
BEECH 18	1150918	BEECH 18	1150913	BEECH 18	1150910
BEECH 18	1150920	BEECH 18	1150914	BEECH 18	1150911
BEECH 18	1150922	BEECH 18	1150916	BEECH 18	1150912
BEECH 18	1150924	BEECH 18	1150918	BEECH 18	1150913
BEECH 18	1150926	BEECH 18	1150920	BEECH 18	1150914
BEECH 18	1150928	BEECH 18	1150922	BEECH 18	1150916
BEECH 18	1150930	BEECH 18	1150924	BEECH 18	1150918
BEECH 18	1150932	BEECH 18	1150926	BEECH 18	1150920
BEECH 18	1151001	BEECH 18	1150928	BEECH 18	1150922
BEECH 18	1151002	BEECH 18	1150930	BEECH 18	1150924
BEECH 18	1151004	BEECH 18	1150932	BEECH 18	1150926
BEECH 18	1151006	BEECH 18	1151001	BEECH 18	1150928
BEECH 18	1151007	BEECH 18	1151002	BEECH 18	1150930
BEECH 18	1151008	BEECH 18	1151004	BEECH 18	1150932
BEECH 18	1151009	BEECH 18	1151006	BEECH 18	1151001
BEECH 18	1151010	BEECH 18	1151007	BEECH 18	1151002
BEECH 18	1151011	BEECH 18	1151008	BEECH 18	1151004
BEECH 18	1151012	BEECH 18	1151009	BEECH 18	1151006
BEECH 18	1151013	BEECH 18	1151010	BEECH 18	1151007
BEECH 18	1151014	BEECH 18	1151011	BEECH 18	1151008
BEECH 18	1151015	BEECH 18	1151012	BEECH 18	1151009
BEECH 18	1151016	BEECH 18	1151013	BEECH 18	1151010
BEECH 18	1151018	BEECH 18	1151014	BEECH 18	1151011
BEECH 18	1151019	BEECH 18	1151015	BEECH 18	1151012
BEECH 18	1151020	BEECH 18	1151016	BEECH 18	1151013
BEECH 18	1151021	BEECH 18	1151018	BEECH 18	1151014
BEECH 18	1151022	BEECH 18	1151019	BEECH 18	1151015
BEECH 18	1151023	BEECH 18	1151020	BEECH 18	1151016
BEECH 18	1151024	BEECH 18	1151021	BEECH 18	1151018
BEECH 18	1151026	BEECH 18	1151022	BEECH 18	1151019
BEECH 18	1151040	BEECH 18	1151023	BEECH 18	1151020
BEECH 18	1151042	BEECH 18	1151024	BEECH 18	1151021
BEECH 18	1151044	BEECH 18	1151026	BEECH 18	1151022
BEECH 18	1151046	BEECH 18	1151040	BEECH 18	1151023
BEECH 18	1151048	BEECH 18	1151042	BEECH 18	1151024
BEECH 18	1151050	BEECH 18	1151044	BEECH 18	1151026
BEECH 18	1151102	BEECH 18	1151046	BEECH 18	1151040
BEECH 18	* 18	BEECH 18	1151048	BEECH 18	1151042

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
BEECH 18	1151044	BEECH 35	1151550	BEECH 80	1152809
BEECH 18	1151046	BEECH 36	1151602	BEECH 80	1152812
BEECH 18	1151048	BEECH 36	1151603	BEECH 80	1152814
BEECH 18	1151050	BEECH 36	1151604	BEECH 80	1153010
BEECH 18	1151102	BEECH 36	1151605	BEECH 90	*90
BEECH 200	*200	BEECH 36	1151606	BEECH 90	1152902
BEECH 200	1152920	BEECH 36	1151607	BEECH 90	1152907
BEECH 200	1152922	BEECH 45	1152002	BEECH 90	1152908
BEECH 200	1152924	BEECH 45	1152004	BEECH 90	1152909
BEECH 200	1152926	BEECH 45	1152006	BEECH 90	1152912
BEECH 200	1152928	BEECH 45	1152008	BEECH 90	1152914
BEECH 23	1151202	BEECH 45	1152010	BEECH 90	1153409
BEECH 23	1151204	BEECH 45	1152012	BEECH 95	1153402
BEECH 23	1151208	BEECH 45	1152013	BEECH 95	1153404
BEECH 23	1151212	BEECH 45	1152014	BEECH 95	1153406
BEECH 23	1151214	BEECH 50	1152502	BEECH 95	1153408
BEECH 23	1151215	BEECH 50	1152504	BEECH 95	1153410
BEECH 23	1151216	BEECH 50	1152506	BEECH 99	*99
BEECH 23	1151226	BEECH 50	1152508	BEECH 99	1153802
BEECH 23	1151230	BEECH 50	1152510	BEECH 99	1154002
BEECH 23	1151240	BEECH 50	1152512	BEECH 99	1154004
BEECH 23	1151242	BEECH 50	1152514	BEECH 99	1154006
BEECH 23	1151250	BEECH 50	1152516	BELL 204	1181402
BEECH 23	1151252	BEECH 50	1152518	BELL 204	1181404
BEECH 23	1151253	BEECH 50	1152520	BELL 204	1181405
BEECH 23	1151254	BEECH 50	1152522	BELL 204	1181406
BEECH 33	1151402	BEECH 50	1152524	BELL 204	1181408
BEECH 33	1151404	BEECH 50	1152526	BELL 204	1181409
BEECH 33	1151406	BEECH 50	1152528	BELL 204	1181410
BEECH 33	1151408	BEECH 50	1152530	BELL 204	1181411
BEECH 33	1151410	BEECH 50	1152532	BELL 205	1181413
BEECH 33	1151414	BEECH 50	1152534	BELL 205	1181414
BEECH 33	1151418	BEECH 50	1152536	BELL 205	1181416
BEECH 33	1151422	BEECH 55	*55	BELL 206	1181502
BEECH 33	1151423	BEECH 55	1152702	BELL 206	1181503
BEECH 33	1151424	BEECH 55	1152704	BELL 206	1181504
BEECH 33	1151425	BEECH 55	1152706	BELL 206	1181506
BEECH 33	1151432	BEECH 55	1152708	BELL 206	1181508
BEECH 33	1151434	BEECH 55	1152728	BELL 206	1181510
BEECH 33	1151435	BEECH 55	1152729	BELL 206	1181511
BEECH 35	1151502	BEECH 55	1152730	BELL 206	1181512
BEECH 35	1151504	BEECH 55	1152732	BELL 206	1181522
BEECH 35	1151506	BEECH 56	1152736	BELL 206	1181579
BEECH 35	1151508	BEECH 56	1152738	BELL 206	1182107
BEECH 35	1151510	BEECH 58	*58	BELL 206	1182108
BEECH 35	1151512	BEECH 58	1152740	BELL 212	1181420
BEECH 35	1151514	BEECH 58	1152744	BELL 222	1182122
BEECH 35	1151516	BEECH 58	1152746	BELL 412	1182202
BEECH 35	1151518	BEECH 80	1153602	BELL 47	1180602
BEECH 35	1151520	BEECH 80	1153604	BELL 47	1180603
BEECH 35	1151522	BEECH 80	1153605	BELL 47	1180604
BEECH 35	1151524	BEECH 85	*65	BELL 47	1180606
BEECH 35	1151526	BEECH 85	1152802	BELL 47	1180702
BEECH 35	1151528	BEECH 85	1152803	BELL 47	1180704
BEECH 35	1151530	BEECH 85	1152804	BELL 47	1180802
BEECH 35	1151532	BEECH 85	1152805	BELL 47	1180804
BEECH 35	1151538	BEECH 77	1153007	BELL 47	1180806
BEECH 35	1151540	BEECH 80	*80	BELL 47	1180808
BEECH 35	1151544	BEECH 80	1152806	BELL 47	1180809
BEECH 35	1151546	BEECH 80	1152807	BELL 47	1180810
BEECH 35	1151548	BEECH 80	1152808	BELL 47	1180811



TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
BELL 47	1180812	BELL 47	1181066	BLANCA7	1220460
BELL 47	1180813	BELL 47	1181067	BLANCA7	1220501
BELL 47	1180814	BELL 47	1181068	BLANCA7	1220601
BELL 47	1180816	BELL 47	1181069	BLANCA7	1220701
BELL 47	1180820	BELL 47	1181070	BLANCA7	2110102
BELL 47	1180822	BELL 47	1181071	BLANCA7	2110104
BELL 47	1180843	BELL 47	1181073	BLANCA7	2110106
BELL 47	1180844	BELL 47	1181102	BLANCA7	2110108
BELL 47	1180845	BELL 47	1181103	BLANCA7	2110110
BELL 47	1180846	BELL 47	1181104	BLANCA7	2110112
BELL 47	118084C	BELL 47	1181106	BLANCA7	2110114
BELL 47	118084E	BELL 47	1181202	BLANCA7	2110116
BELL 47	118084F	BELL 47	1181310	BLANCA7	2110118
BELL 47	118084G	BELL 47	1181403	BLANCA7	2110120
BELL 47	118084H	BELL 47	1181585	BLANCA7	2110122
BELL 47	118084K	BELL 47	2390101	BLANCA7	2110124
BELL 47	118084M	BELL 47	2390301	BLANCA7	2110126
BELL 47	118084P	BELL 47	8930102	BLANCA7	2110128
BELL 47	118084R	BELL 47	8930103	BLANCA7	2110130
BELL 47	118084V	BELL 47	8930105	BLANCA7	2110132
BELL 47	1180902	BLANCA11	0191102	BLANCA7	2110133
BELL 47	1180904	BLANCA11	0191104	BLANCA7	2110134
BELL 47	1181001	BLANCA11	0191106	BLANCA7	2110136
BELL 47	1181002	BLANCA11	0191108	BLANCA7	2110138
BELL 47	1181003	BLANCA11	0191110	BLANCA7	2110140
BELL 47	1181004	BLANCA11	0191112	BLANCA7	2110142
BELL 47	1181005	BLANCA11	9140404	BLANCA7	2110144
BELL 47	1181006	BLANCA11	9140408	BLANCA7	2110146
BELL 47	1181007	BLANCA1413	1201002	BLANCA7	2110148
BELL 47	1181008	BLANCA1413	1201004	BLANCA7	2110150
BELL 47	1181009	BLANCA1413	1201006	BLANCA7	2110152
BELL 47	118100V	BLANCA1413	1201008	BLANCA7	2110154
BELL 47	1181010	BLANCA1419	1220402	BLANCA7	2110156
BELL 47	1181011	BLANCA1419	1220404	BLANCA7	2110158
BELL 47	1181012	BLANCA1419	1220406	BLANCA7	2110160
BELL 47	1181013	BLANCA1419	1220408	BLANCA7	2110162
BELL 47	1181014	BLANCA1419	3080102	BLANCA7	2110164
BELL 47	1181016	BLANCA1419	3080104	BLANCA7	2110166
BELL 47	1181018	BLANCA1419	3080106	BLANCA7	2110168
BELL 47	1181020	BLANCA1419	3080108	BLANCA7	2110170
BELL 47	1181022	BLANCA1419	3080112	BLANCA7	2110172
BELL 47	1181023	BLANCA1419	3080114	BLANCA7	2110174
BELL 47	1181024	BLANCA1419	3080116	BLANCA7	2110176
BELL 47	1181025	BLANCA1419	3080118	BLANCA7	21101M2
BELL 47	1181026	BLANCA1419	3080122	BLANCA7	21101M6
BELL 47	1181027	BLANCA1419	3080124	BLANCA7	21101MA
BELL 47	1181028	BLANCA1419	3080126	BLANCA7	21101MF
BELL 47	1181029	BLANCA1419	3080128	BLANCA7	21101ML
BELL 47	1181030	BLANCA1419	4580802	BLANCA7	21101MR
BELL 47	1181031	BLANCA1419	4580804	BLANCA7	21101MW
BELL 47	1181032	BLANCA1419	4580806	BLANCA7	21101N2
BELL 47	1181033	BLANCA1419	4580808	BLANCA7	21101N7
BELL 47	1181034	BLANCA17	1220432	BLANCA7	21101N8
BELL 47	118103M	BLANCA17	1220433	BLANCA7	21101N8
BELL 47	1181032	BLANCA17	1220434	BLANCA7	21101NB
BELL 47	1181060	BLANCA17	1220435	BLANCA7	21101NG
BELL 47	1181061	BLANCA17	1220436	BLANCA7	21101NM
BELL 47	1181062	BLANCA17	1220437	BLANCA7	21101NN
BELL 47	1181063	BLANCA17	1220940	BLANCA7	21101NS
BELL 47	1181064	BLANCA7	0190107	BLANCA7	21101NX
BELL 47	1181065	BLANCA7	1220438	BLANCA7	21101P3
				BLANCA7	21101PC

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
BLANCA7	21101FH	BLANCA7	21101NG	BOEING707	1383663
BLANCA7	21101PK	BLANCA7	21101NM	BOEING707	1383668
BLANCA7	21101PN	BLANCA7	21101NN	BOEING707	1383668
BLANCA7	21101PT	BLANCA7	21101NS	BOEING707	138366C
BLANCA7	21101PY	BLANCA7	21101NX	BOEING707	138366D
BLANCA7	0190107	BLANCA7	21101P3	BOEING707	138366F
BLANCA7	1220438	BLANCA7	21101PC	BOEING707	138366H
BLANCA7	1220460	BLANCA7	21101PH	BOEING707	138366K
BLANCA7	1220501	BLANCA7	21101PK	BOEING707	138366M
BLANCA7	1220601	BLANCA7	21101PN	BOEING707	138366P
BLANCA7	1220701	BLANCA7	21101PT	BOEING707	1383677
BLANCA7	2110102	BLANCA7	21101PY	BOEING707	138367A
BLANCA7	2110104	BLANCA8	1220801	BOEING707	138367B
BLANCA7	2110106	BLANCA8	1220803	BOEING707	138367C
BLANCA7	2110108	BLANCA8	2110612	BOEING707	138367D
BLANCA7	2110110	BNORM BN2	*BN2	BOEING707	138367E
BLANCA7	2110112	BNORM BN2	1520202	BOEING707	138367F
BLANCA7	2110114	BNORM BN2	1520204	BOEING707	138367G
BLANCA7	2110116	BNORM BN2	1520206	BOEING707	138367H
BLANCA7	2110118	BNORM BN2	1520207	BOEING707	138367J
BLANCA7	2110120	BNORM BN2	1520209	BOEING707	138367K
BLANCA7	2110122	BNORM BN2	1520210	BOEING707	138367L
BLANCA7	2110124	BNORM BN2	1520215	BOEING707	138367M
BLANCA7	2110126	BNORM BN2	1520220	BOEING707	138367N
BLANCA7	2110128	BNORM BN2	1520221	BOEING707	138367P
BLANCA7	2110130	BNORM BN2	1520226	BOEING707	138367Q
BLANCA7	2110132	BNORM BN2	1520227	BOEING707	138367R
BLANCA7	2110133	BNORM BN2	1520302	BOEING707	138367S
BLANCA7	2110134	BNORM BN2	1520350	BOEING707	138367T
BLANCA7	2110136	BNORM BN2	7080221	BOEING707	138367U
BLANCA7	2110138	BNORM BN2	7080227	BOEING707	138367V
BLANCA7	2110140	BOEING707	*707	BOEING707	138367W
BLANCA7	2110142	BOEING707	1383601	BOEING707	138367X
BLANCA7	2110144	BOEING707	1383602	BOEING707	138367Y
BLANCA7	2110146	BOEING707	1383604	BOEING707	1383688
BLANCA7	2110148	BOEING707	1383605	BOEING707	138368D
BLANCA7	2110150	BOEING707	1383606	BOEING707	138368F
BLANCA7	2110152	BOEING707	1383608	BOEING707	138368H
BLANCA7	2110154	BOEING707	1383609	BOEING707	138368K
BLANCA7	2110156	BOEING707	138360C	BOEING707	138368M
BLANCA7	2110158	BOEING707	138360F	BOEING707	138369R
BLANCA7	2110160	BOEING707	138360H	BOEING707	1383701
BLANCA7	2110162	BOEING707	138360K	BOEING707	1383706
BLANCA7	2110164	BOEING707	138360N	BOEING720	*720
BLANCA7	2110166	BOEING707	138360P	BOEING720	1383802
BLANCA7	2110168	BOEING707	138360R	BOEING720	1383804
BLANCA7	2110170	BOEING707	138360T	BOEING720	1383810
BLANCA7	2110172	BOEING707	138360V	BOEING720	1383814
BLANCA7	2110174	BOEING707	138360X	BOEING720	1383818
BLANCA7	2110176	BOEING707	1383610	BOEING720	1383822
BLANCA7	21101M2	BOEING707	1383612	BOEING720	1383826
BLANCA7	21101M6	BOEING707	1383614	BOEING720	1383830
BLANCA7	21101MA	BOEING707	1383616	BOEING720	1383841
BLANCA7	21101MF	BOEING707	1383618	BOEING720	1383845
BLANCA7	21101ML	BOEING707	138361G	BOEING720	1383849
BLANCA7	21101MR	BOEING707	1383658	BOEING720	1383853
BLANCA7	21101MW	BOEING707	138365D	BOEING720	1383857
BLANCA7	21101N2	BOEING707	138365F	BOEING720	1383861
BLANCA7	21101N7	BOEING707	138365H	BOEING720	1383865
BLANCA7	21101N8	BOEING707	138365K	BOEING720	1383869
BLANCA7	21101NB	BOEING707	1383660	BOEING720	1383873

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
BOEING720	1383877	BOEING727	138407F	BOEING737	138442P
BOEING727	*727	BOEING727	138407G	BOEING737	138448R
BOEING727	1384001	BOEING727	138407K	BOEING737	138448S
BOEING727	1384002	BOEING727	138407L	BOEING737	138448T
BOEING727	1384003	BOEING727	138407M	BOEING737	138448V
BOEING727	1384004	BOEING727	138407N	BOEING737	138448W
BOEING727	1384005	BOEING727	138407P	BOEING737	138448X
BOEING727	1384006	BOEING727	138407Q	BOEING737	138448Y
BOEING727	1384008	BOEING727	138407R	BOEING737	1384492
BOEING727	138400B	BOEING727	138407S	BOEING737	1384494
BOEING727	138400C	BOEING727	138407T	BOEING737	1384550
BOEING727	138400E	BOEING727	138407W	BOEING737	1384560
BOEING727	138400F	BOEING727	138407Z	BOEING747	*747
BOEING727	138400G	BOEING727	1384080	BOEING747	1384801
BOEING727	138400H	BOEING727	1384082	BOEING747	1384802
BOEING727	138400J	BOEING727	1384084	BOEING747	1384803
BOEING727	138400K	BOEING727	138408B	BOEING747	1384804
BOEING727	138400M	BOEING727	138408D	BOEING747	1384810
BOEING727	1384010	BOEING727	138408F	BOEING747	1384811
BOEING727	1384011	BOEING727	138408H	BOEING747	1384812
BOEING727	1384012	BOEING727	138408J	BOEING747	1384813
BOEING727	1384013	BOEING727	138408L	BOEING747	1384814
BOEING727	1384014	BOEING727	138408M	BOEING747	1384815
BOEING727	1384015	BOEING727	138408N	BOEING747	1384820
BOEING727	1384016	BOEING727	138408W	BOEING747	1384849
BOEING727	1384017	BOEING727	138408X	BOEING747	1384866
BOEING727	1384018	BOEING727	13840X2	BOEING747	1384868
BOEING727	1384019	BOEING727	13840XY	BOEING747	1384869
BOEING727	1384025	BOEING737	*737	BOEING747	1384871
BOEING727	1384027	BOEING737	1384402	BOEING747	1384872
BOEING727	1384028	BOEING737	1384404	BOEING747	1384873
BOEING727	138402C	BOEING737	1384435	BOEING747	1384874
BOEING727	1384030	BOEING737	1384438	BOEING747	1384881
BOEING727	1384032	BOEING737	1384453	BOEING747	1384882
BOEING727	1384035	BOEING737	1384454	BOEING747	1384885
BOEING727	1384036	BOEING737	1384457	BOEING747	1384886
BOEING727	1384037	BOEING737	1384458	BOEING747	1384888
BOEING727	1384041	BOEING737	1384459	BOEING747	1384890
BOEING727	1384043	BOEING737	1384460	BOEING747	1384891
BOEING727	1384044	BOEING737	1384461	BOEING747	1384892
BOEING727	138404G	BOEING737	1384466	BOEING747	1384893
BOEING727	138404V	BOEING737	1384469	BOEING747	1384894
BOEING727	138404Z	BOEING737	138446R	BOEING747	1384895
BOEING727	1384056	BOEING737	1384473	BOEING747	1384896
BOEING727	1384057	BOEING737	1384476	BOEING747	1384897
BOEING727	1384058	BOEING737	1384477	BOEING747	1384898
BOEING727	1384059	BOEING737	1384478	BOEING747	1384899
BOEING727	1384063	BOEING737	1384479	BOEING747	1384902
BOEING727	1384067	BOEING737	1384480	BOEING747	1384903
BOEING727	138406G	BOEING737	1384484	BOEING75	1380102
BOEING727	138406N	BOEING737	1384488	BOEING75	1380104
BOEING727	1384071	BOEING737	138448A	BOEING75	1380106
BOEING727	1384072	BOEING737	138448B	BOEING75	1380108
BOEING727	1384073	BOEING737	138448C	BOEING75	1380110
BOEING727	1384074	BOEING737	138448D	BOEING75	1380112
BOEING727	1384075	BOEING737	138448E	BOEING75	1380114
BOEING727	1384076	BOEING737	138448F	BOEING75	1380116
BOEING727	1384077	BOEING737	138448G	BOEING75	1380118
BOEING727	1384078	BOEING737	138448J	BOEING75	1380120
BOEING727	1384079	BOEING737	138448M	BOEING75	1380121
BOEING727	138407E	BOEING737	138448N	BOEING75	1380122

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
BOEING75	1380124	CESSNA150	2071826	CESSNA182	2072716
BOEING75	1380126	CESSNA150	2071828	CESSNA182	2072718
BOEING75	1380128	CESSNA150	2071830	CESSNA182	2072722
BOEING75	1380130	CESSNA150	2071831	CESSNA182	2072724
BOEING75	1380131	CESSNA150	2071835	CESSNA182	2072726
BOEING75	1380132	CESSNA150	2071836	CESSNA182	2072728
BOEING75	1380133	CESSNA170	2072302	CESSNA182	2072730
BOEING75	1380134	CESSNA170	2072304	CESSNA182	2072731
BOEING75	1380136	CESSNA170	2072306	CESSNA182	2072732
BOEING75	1380137	CESSNA172	2072202	CESSNA182	2072734
BOEING75	1380138	CESSNA172	2072402	CESSNA182	2072735
BOEING75	1380140	CESSNA172	2072404	CESSNA182	2072736
BOEING75	1380142	CESSNA172	2072406	CESSNA182	2075802
BOEING75	1380144	CESSNA172	2072408	CESSNA182	2075806
BOEING75	1380146	CESSNA172	2072410	CESSNA182	2075814
BOEING75	1380148	CESSNA172	2072412	CESSNA182	2075816
BOEING75	1380150	CESSNA172	2072413	CESSNA185	*185
BOEING75	1380152	CESSNA172	2072414	CESSNA185	2072802
BOEING75	1380154	CESSNA172	2072416	CESSNA185	2072804
BOLKMS105	1406006	CESSNA172	2072418	CESSNA185	2072806
BOLKMS105	5626005	CESSNA172	2072420	CESSNA185	2072808
BOLKMS105	5626006	CESSNA172	2072421	CESSNA185	2072812
BRAERODH125	1500205	CESSNA172	2072424	CESSNA185	2072816
BRAERODH125	4230170	CESSNA172	2072425	CESSNA185	2072818
BRASOV	4490102	CESSNA172	2072426	CESSNA185	2072820
BRWSTRFLEET2	1461202	CESSNA172	2072428	CESSNA185	2072821
BRWSTRFLEET2	1461204	CESSNA172	2072429	CESSNA188	2073002
BRWSTRFLEET7	1461502	CESSNA172	2072430	CESSNA188	2073004
BRWSTRFLEET7	1461504	CESSNA172	2072431	CESSNA188	2073005
BRWSTRFLEET7	1461506	CESSNA172	2072432	CESSNA188	2073006
BRWSTRFLEET7	1461512	CESSNA172	2072434	CESSNA188	2073007
BRWSTRFLEET7	1461514	CESSNA172	2072436	CESSNA188	2073008
BRWSTRFLEET7	1461516	CESSNA172	2072437	CESSNA188	2073010
CAMRONMODELO	1880104	CESSNA172	2072438	CESSNA188	2073011
CAMRONMODELO	1880106	CESSNA172	2072443	CESSNA188	2073012
CAMRONMODELO	1880108	CESSNA175	2072502	CESSNA190	2072902
CAMRONMODELO	1880110	CESSNA175	2072504	CESSNA195	2073102
CAMRONMODELO	1880112	CESSNA175	2072506	CESSNA195	2073104
CAMRONMODELO	1880113	CESSNA175	2072508	CESSNA195	2073106
CAMRONMODELO	1880120	CESSNA177	2073704	CESSNA195	2073108
CAMRONMODELO	1880122	CESSNA177	2073706	CESSNA195	2073110
CAMRONMODELO	1880201	CESSNA177	2073708	CESSNA195	2073112
CAMRONMODELO	1880202	CESSNA177	2073709	CESSNA205	2073202
CAMRONMODELO	1880203	CESSNA180	2072602	CESSNA205	2073204
CAMRONMODELO	1880204	CESSNA180	2072604	CESSNA206	*206
CESSNA120	2071402	CESSNA180	2072606	CESSNA206	2073302
CESSNA140	2071602	CESSNA180	2072608	CESSNA206	2073304
CESSNA140	2071604	CESSNA180	2072610	CESSNA206	2073306
CESSNA150	*150	CESSNA180	2072612	CESSNA206	2073308
CESSNA150	2071802	CESSNA180	2072614	CESSNA206	2073309
CESSNA150	2071804	CESSNA180	2072616	CESSNA206	2073310
CESSNA150	2071806	CESSNA180	2072618	CESSNA206	2073311
CESSNA150	2071808	CESSNA180	2072622	CESSNA206	2073312
CESSNA150	2071810	CESSNA180	2072624	CESSNA206	2073313
CESSNA150	2071812	CESSNA182	2072702	CESSNA206	2073316
CESSNA150	2071814	CESSNA182	2072704	CESSNA206	2073317
CESSNA150	2071816	CESSNA182	2072706	CESSNA206	2073318
CESSNA150	2071818	CESSNA182	2072708	CESSNA206	2073319
CESSNA150	2071820	CESSNA182	2072710	CESSNA206	2073322
CESSNA150	2071822	CESSNA182	2072712	CESSNA206	2073324
CESSNA150	2071824	CESSNA182	2072714	CESSNA206	2073326

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
CESSNA206	2073333	CESSNA305	207408D	CESSNA401	207590E
CESSNA206	2073334	CESSNA305	207408K	CESSNA402	*402
CESSNA206	2073338	CESSNA310	*310	CESSNA402	207590K
CESSNA206	2073340	CESSNA310	2074202	CESSNA402	207590L
CESSNA206	2073342	CESSNA310	2074204	CESSNA402	207590M
CESSNA206	2073344	CESSNA310	2074206	CESSNA402	207590P
CESSNA206	2073346	CESSNA310	2074208	CESSNA402	207590R
CESSNA206	2073348	CESSNA310	2074210	CESSNA404	2075901
CESSNA206	2073350	CESSNA310	2074212	CESSNA411	2075902
CESSNA206	2073352	CESSNA310	2074214	CESSNA411	2075904
CESSNA206	2073353	CESSNA310	2074216	CESSNA414	*414
CESSNA206	2073356	CESSNA310	2074218	CESSNA414	2075907
CESSNA206	2073357	CESSNA310	2074220	CESSNA414	2075908
CESSNA207	*207	CESSNA310	2074222	CESSNA421	*421
CESSNA207	2073602	CESSNA310	2074224	CESSNA421	2076010
CESSNA207	2073604	CESSNA310	2074226	CESSNA421	2076012
CESSNA207	2073612	CESSNA310	2074228	CESSNA421	2076014
CESSNA207	2073614	CESSNA310	2074230	CESSNA421	2076016
CESSNA210	2073402	CESSNA310	2074234	CESSNA425	2076018
CESSNA210	2073403	CESSNA310	2074236	CESSNA500	2076602
CESSNA210	2073404	CESSNA310	2074238	CESSNA500	2076604
CESSNA210	2073406	CESSNA310	2074240	CESSNA501	2066603
CESSNA210	2073408	CESSNA310	2074242	CESSNA501	2076605
CESSNA210	2073410	CESSNA310	2074244	CESSNAT50	2071302
CESSNA210	2073412	CESSNA310	2074245	CESSNAT50	2071304
CESSNA210	2073414	CESSNA310	2074246	CESSNAT50	2071305
CESSNA210	2073416	CESSNA320	2074502	CESSNAT50	2071306
CESSNA210	2073418	CESSNA320	2074504	CESSNAT50	2071307
CESSNA210	2073422	CESSNA320	2074506	CESSNAT50	2071308
CESSNA210	2073430	CESSNA320	2074508	CESSNAUC94	2070902
CESSNA210	2073432	CESSNA320	2074510	CESSNAUC94	2071002
CESSNA210	2073436	CESSNA320	2074512	CESSNAUC94	2071102
CESSNA210	2073438	CESSNA320	2074514	CESSNAUC94	2071104
CESSNA210	2073439	CESSNA320	2074516	CHILD S1	0110100
CESSNA210	2073440	CESSNA335	2075601	CHILD S1	0110201
CESSNA210	2073446	CESSNA336	2075602	CHILD S1	0110202
CESSNA210	2073447	CESSNA337	*337	CHILD S1	0110301
CESSNA210	2073448	CESSNA337	2075702	CHILD S1	0110303
CESSNA210	2073449	CESSNA337	2075703	CHILD S1	0110304
CESSNA210	2073450	CESSNA337	2075704	CHILD S1	011101A
CESSNA210	2073451	CESSNA337	2075706	CND AIRCL600	1900302
CESSNA210	2073453	CESSNA337	2075707	COMWTH185	2370602
CESSNA210	2073454	CESSNA337	2075712	COMWTH185	2370604
CESSNA210	2073456	CESSNA337	2075714	COMWTH185	2370608
CESSNA303	2073820	CESSNA337	2075717	CONAERLA4	2400102
CESSNA305	2073902	CESSNA337	2075719	CONAERLA4	2400108
CESSNA305	2074001	CESSNA337	2075721	CONAERLA4	2400110
CESSNA305	2074002	CESSNA337	2075723	CONAERLA4	5110302
CESSNA305	2074003	CESSNA337	2075724	CONAERLA4	5110304
CESSNA305	2074004	CESSNA337	2075725	CONAERLA4	5110306
CESSNA305	2074005	CESSNA337	2075726	CONAERLA4	5110308
CESSNA305	2074006	CESSNA337	2075727	CONAERLA4	5110310
CESSNA305	2074008	CESSNA337	2075730	CONAERLA4	5110312
CESSNA305	2074010	CESSNA337	2075731	CONAERLA4	5110314
CESSNA305	2074012	CESSNA337	2075732	CONAERLA4	5110316
CESSNA305	2074014	CESSNA337	2075733	CONAERLA4	5110320
CESSNA305	2074016	CESSNA340	2076404	CURTISC46	*C46
CESSNA305	2074018	CESSNA340	2076405	CURTISC46	2622601
CESSNA305	2074028	CESSNA401	*401	CURTISC46	2622602
CESSNA305	2074030	CESSNA401	207590C	CURTISC46	2622604
CESSNA305	2074031	CESSNA401	207590D	CURTISC46	2622608

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
CURTISC46	2622608	CURTISTRVAIR	2621828	CVAC	BT13 2420226
CURTISC46	2622610	CURTISTRVAIR	2621830	CVAC	BT13 2420228
CURTISC46	2622624	CURTISTRVAIR	2621832	CVAC	BT13 2420230
CURTISC46	2622701	CURTISTRVAIR	2621902	CVAC	L13 2420702
CURTISC46	2622702	CURTISTRVAIR	2621904	CVAC	L13 2420704
CURTISC46	2622704	CURTISTRVAIR	2621906	CVAC	L13 2420706
CURTISC46	2622706	CURTISTRVAIR	2621908	CVAC	STC580 *STC580
CURTISC46	2622708	CVAC	22 *22	CVAC	STC580 2422801
CURTISC46	2622710	CVAC	22 2423302	CVAC	STC580 2422802
CURTISC46	2622750	CVAC	22 2423304	CVAC	STC580 2422804
CURTISJR	2620502	CVAC	22 3790104	CVAC	STC580 2422806
CURTISROBIN	2620802	CVAC	240 *240	CVAC	STC580 2423001
CURTISROBIN	2620804	CVAC	240 2422601	CVAC	STC580 2423002
CURTISROBIN	2620806	CVAC	240 2422602	DART	G 2700102
CURTISROBIN	2620808	CVAC	240 2422604	DART	G 2700104
CURTISROBIN	2620810	CVAC	240 2422606	DART	G 2700106
CURTISROBIN	2620812	CVAC	240 2422608	DART	G 2700108
CURTISROBIN	2620814	CVAC	240 2422610	DHAV	DHC1 2801702
CURTISTRVAIR	2621002	CVAC	240 2422612	DHAV	DHC1 2801704
CURTISTRVAIR	2621004	CVAC	240 2422614	DHAV	DHC1 2801712
CURTISTRVAIR	2621006	CVAC	240 2422616	DHAV	DHC1 2801714
CURTISTRVAIR	2621008	CVAC	240 2422618	DHAV	DHC1 2801716
CURTISTRVAIR	2621010	CVAC	240 2422620	DHAV	DHC1 2801736
CURTISTRVAIR	2621012	CVAC	240 2422622	DHAV	DHC1 2801738
CURTISTRVAIR	2621102	CVAC	240 2422624	DHAV	DHC1 2801739
CURTISTRVAIR	2621104	CVAC	240 2422626	DHAV	DHC2 *DHC2
CURTISTRVAIR	2621106	CVAC	240 2422628	DHAV	DHC2 2800102
CURTISTRVAIR	2621108	CVAC	240 2422630	DHAV	DHC2 2800103
CURTISTRVAIR	2621202	CVAC	240 2422632	DHAV	DHC2 2800104
CURTISTRVAIR	2621204	CVAC	240 2422633	DHAV	DHC2 2800105
CURTISTRVAIR	2621302	CVAC	240 2422634	DHAV	DHC2 2800106
CURTISTRVAIR	2621304	CVAC	240 2422636	DHAV	DHC2 2800107
CURTISTRVAIR	2621306	CVAC	240 2422638	DHAV	DHC2 2800108
CURTISTRVAIR	2621308	CVAC	240 2422640	DHAV	DHC2 2800109
CURTISTRVAIR	2621402	CVAC	240 2422642	DHAV	DHC2 2800115
CURTISTRVAIR	2621404	CVAC	240 2422643	DHAV	DHC2 2801830
CURTISTRVAIR	2621406	CVAC	240 2422644	DHAV	DHC2 2801832
CURTISTRVAIR	2621408	CVAC	240 2422645	DHAV	DHC3 *DHC3
CURTISTRVAIR	2621502	CVAC	240 2422646	DHAV	DHC3 2800202
CURTISTRVAIR	2621504	CVAC	240 2422647	DHAV	DHC6 *DHC6
CURTISTRVAIR	2621506	CVAC	240 2422648	DHAV	DHC6 2802606
CURTISTRVAIR	2621508	CVAC	240 242264A	DHAVXXDH82	2801002
CURTISTRVAIR	2621602	CVAC	340 *340	DHAVXXDH82	2801006
CURTISTRVAIR	2621604	CVAC	340 2422702	DHAVXXDH82	2801020
CURTISTRVAIR	2621606	CVAC	340 2422704	DOUG	A26 3020502
CURTISTRVAIR	2621608	CVAC	340 2422706	DOUG	A26 3020504
CURTISTRVAIR	2621702	CVAC	340 2422708	DOUG	A26 3020506
CURTISTRVAIR	2621704	CVAC	340 242270A	DOUG	A26 3020510
CURTISTRVAIR	2621802	CVAC	340 242270H	DOUG	A26 3020512
CURTISTRVAIR	2621804	CVAC	340 2422712	DOUG	A26 3020516
CURTISTRVAIR	2621806	CVAC	340 2422714	DOUG	A26 3020518
CURTISTRVAIR	2621808	CVAC	340 2422716	DOUG	A26 3020524
CURTISTRVAIR	2621810	CVAC	340 2422718	DOUG	A26 3020525
CURTISTRVAIR	2621812	CVAC	340 2422742	DOUG	A26 3020526
CURTISTRVAIR	2621814	CVAC	BT13 2420202	DOUG	A26 3020527
CURTISTRVAIR	2621816	CVAC	BT13 2420204	DOUG	DC10 *DC10
CURTISTRVAIR	2621818	CVAC	BT13 2420206	DOUG	DC10 3022110
CURTISTRVAIR	2621820	CVAC	BT13 2420208	DOUG	DC10 3022111
CURTISTRVAIR	2621822	CVAC	BT13 2420210	DOUG	DC10 3022114
CURTISTRVAIR	2621824	CVAC	BT13 2420222	DOUG	DC10 3022118
CURTISTRVAIR	2621826	CVAC	BT13 2420224	DOUG	DC10 3023001

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR			FAA			SDR			FAA		
DOUG	DC10	3023501	DOUG	DC3	302146Z	DOUG	DC8	302191D			
DOUG	DC10	3023503	DOUG	DC3	3021470	DOUG	DC8	302191F			
DOUG	DC10	3023508	DOUG	DC3	3021471	DOUG	DC8	302191H			
DOUG	DC3	*DC3	DOUG	DC3	3021472	DOUG	DC8	302191K			
DOUG	DC3	3021401	DOUG	DC3	3021473	DOUG	DC8	3021920			
DOUG	DC3	3021402	DOUG	DC3	3021474	DOUG	DC8	3021922			
DOUG	DC3	3021404	DOUG	DC3	3021476	DOUG	DC8	3021924			
DOUG	DC3	3021406	DOUG	DC3	3021478	DOUG	DC8	3021925			
DOUG	DC3	3021410	DOUG	DC3	302147M	DOUG	DC8	3021926			
DOUG	DC3	3021412	DOUG	DC3	3021480	DOUG	DC8	3021927			
DOUG	DC3	3021414	DOUG	DC4	*DC4	DOUG	DC8	3021928			
DOUG	DC3	3021416	DOUG	DC4	3021502	DOUG	DC8	3021928			
DOUG	DC3	3021418	DOUG	DC4	3021504	DOUG	DC8	302192D			
DOUG	DC3	3021420	DOUG	DC4	3021506	DOUG	DC8	302192F			
DOUG	DC3	3021422	DOUG	DC4	3021508	DOUG	DC8	302192H			
DOUG	DC3	3021424	DOUG	DC4	3021510	DOUG	DC8	302192K			
DOUG	DC3	3021425	DOUG	DC4	3021512	DOUG	DC8	302192M			
DOUG	DC3	3021426	DOUG	DC4	3021514	DOUG	DC8	3021952			
DOUG	DC3	3021427	DOUG	DC4	3021516	DOUG	DC8	3021953			
DOUG	DC3	3021428	DOUG	DC4	3021518	DOUG	DC8	3021954			
DOUG	DC3	3021429	DOUG	DC4	3021520	DOUG	DC8	302195B			
DOUG	DC3	3021430	DOUG	DC4	3021522	DOUG	DC8	302195D			
DOUG	DC3	3021431	DOUG	DC4	3021524	DOUG	DC8	3021965			
DOUG	DC3	3021432	DOUG	DC4	3021526	DOUG	DC8	3021970			
DOUG	DC3	3021433	DOUG	DC4	3021528	DOUG	DC8	3021972			
DOUG	DC3	3021434	DOUG	DC4	3021530	DOUG	DC8	302197B			
DOUG	DC3	3021436	DOUG	DC4	3021532	DOUG	DC8	302197D			
DOUG	DC3	3021438	DOUG	DC4	3021534	DOUG	DC8	302198A			
DOUG	DC3	3021439	DOUG	DC4	3021536	DOUG	DC8	302198B			
DOUG	DC3	3021440	DOUG	DC4	3021537	DOUG	DC8	302198F			
DOUG	DC3	3021441	DOUG	DC4	3021538	DOUG	DC8	302198H			
DOUG	DC3	3021442	DOUG	DC6	*DC6	DOUG	DC9	*DC9			
DOUG	DC3	3021443	DOUG	DC6	3021702	DOUG	DC9	3022002			
DOUG	DC3	3021444	DOUG	DC6	3021706	DOUG	DC9	3022026			
DOUG	DC3	3021445	DOUG	DC6	3021708	DOUG	DC9	3022028			
DOUG	DC3	3021446	DOUG	DC6	3021710	DOUG	DC9	3022028			
DOUG	DC3	3021447	DOUG	DC6	3021712	DOUG	DC9	3022030			
DOUG	DC3	3021448	DOUG	DC6	3021714	DOUG	DC9	3022034			
DOUG	DC3	3021449	DOUG	DC7	*DC7	DOUG	DC9	3022036			
DOUG	DC3	3021450	DOUG	DC7	3021802	DOUG	DC9	3022037			
DOUG	DC3	3021451	DOUG	DC7	3021804	DOUG	DC9	302203B			
DOUG	DC3	3021452	DOUG	DC7	3021805	DOUG	DC9	302203D			
DOUG	DC3	3021453	DOUG	DC7	3021806	DOUG	DC9	302203F			
DOUG	DC3	3021454	DOUG	DC7	3021807	DOUG	DC9	302203H			
DOUG	DC3	3021455	DOUG	DC7	3021808	DOUG	DC9	302203K			
DOUG	DC3	3021456	DOUG	DC8	*DC8	DOUG	DC9	3022051			
DOUG	DC3	3021457	DOUG	DC8	3021901	DOUG	DC9	302205A			
DOUG	DC3	3021458	DOUG	DC8	3021902	DOUG	DC9	302205C			
DOUG	DC3	3021459	DOUG	DC8	3021904	DOUG	DC9	3022065			
DOUG	DC3	3021460	DOUG	DC8	3021906	DOUG	DC9	3022066			
DOUG	DC3	3021461	DOUG	DC8	3021908	DOUG	DC9	3022067			
DOUG	DC3	3021462	DOUG	DC8	302190B	DOUG	DC9	302206A			
DOUG	DC3	3021463	DOUG	DC8	302190D	DOUG	DC9	302206C			
DOUG	DC3	3021464	DOUG	DC8	302190F	DOUG	DC9	302206E			
DOUG	DC3	3021466	DOUG	DC8	302190H	DOUG	DC9	302207A			
DOUG	DC3	3021467	DOUG	DC8	3021910	DOUG	DC9	302207C			
DOUG	DC3	3021468	DOUG	DC8	3021912	DOUG	DC9	302207D			
DOUG	DC3	3021469	DOUG	DC8	3021914	DOUG	DC9	302207N			
DOUG	DC3	302146T	DOUG	DC8	3021916	DOUG	DC9	302207P			
DOUG	DC3	302146X	DOUG	DC8	3021918	DOUG	DC9	3022080			
DOUG	DC3	302146Y	DOUG	DC8	302191B	DOUG	DC9	3022081			

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
DOUG DC9	3022082	FRCHLD24	3370512	FRCHLD24	3370620
EAGLE DW	3230203	FRCHLD24	3370514	FRCHLD24	3370622
EIRVON20	5760102	FRCHLD24	3370516	FRCHLD24	3370624
EIRVON20	5760104	FRCHLD24	3370518	FRCHLD24	3370626
EIRVON20	5760202	FRCHLD24	3370520	FRCHLD24	3370628
EIRVON20	5760204	FRCHLD24	3370602	FRCHLDC119	3372102
EIRVON20	5760206	FRCHLD24	3370604	FRCHLDC119	3372106
EIRVON20	5760207	FRCHLD24	3370606	FRCHLDC119	3372108
EMAIR MA1	3280103	FRCHLD24	3370608	FRCHLDF27	*F27
EMAIR MA1	6070102	FRCHLD24	3370610	FRCHLDF27	3373002
EMB 110	*110	FRCHLD24	3370612	FRCHLDF27	3373004
EMB 110	3260122	FRCHLD24	3370614	FRCHLDF27	3373006
EMB 110	3280124	FRCHLD24	3370616	FRCHLDF27	3373008
ENSTRMF28	3300404	FRCHLD24	3370618	FRCHLDF27	3373010
ENSTRMF28	3300405	FRCHLD24	3370620	FRCHLDF27	3373016
ENSTRMF28	3300406	FRCHLD24	3370622	FRCHLDFH1100	3376502
ENSTRMF28	3300407	FRCHLD24	3370624	FRCHLDFH1100	4350302
ENSTRMF28	3300412	FRCHLD24	3370626	FRCHLDFH1100	4351405
ENSTRMF28	3300424	FRCHLD24	3370628	FRCHLDM62	3371602
ENSTRMF28	3300502	FRCHLD24	3370202	FRCHLDM62	3371604
ENSTRMF28	3300505	FRCHLD24	3370204	FRCHLDM62	3371606
ENSTRMF28	3300550	FRCHLD24	3370206	FRCHLDM62	3371608
ENSTRMF28	3300404	FRCHLD24	3370208	FRCHLDM62	3371609
ENSTRMF28	3300405	FRCHLD24	3370210	FRCHLDM62	3371610
ENSTRMF28	3300406	FRCHLD24	3370212	FRCHLDM62	3371612
ENSTRMF28	3300407	FRCHLD24	3370214	FRCHLDM62	3371614
ENSTRMF28	3300412	FRCHLD24	3370216	FRCHLDM62	3371616
ENSTRMF28	3300424	FRCHLD24	3370218	FRCHLDM62	3371618
ENSTRMF28	3300502	FRCHLD24	3370220	FRCHLDM62	3371620
ENSTRMF28	3300505	FRCHLD24	3370222	FRCHLDM62	3371622
ENSTRMF28	3300550	FRCHLD24	3370224	FRCHLDM62	3371624
FLEET 16B	3480502	FRCHLD24	3370302	FRCHLDM62	3371626
FLEET 16B	3480504	FRCHLD24	3370304	FRCHLDM62	3371628
FRCHLD24	3370202	FRCHLD24	3370402	FRCHLDM62	3371630
FRCHLD24	3370204	FRCHLD24	3370404	FRCHLDM62	3371632
FRCHLD24	3370206	FRCHLD24	3370406	FRCHLDM62	3371634
FRCHLD24	3370208	FRCHLD24	3370408	FRCHLDM62	3371636
FRCHLD24	3370210	FRCHLD24	3370410	FRCHLDM62	3371638
FRCHLD24	3370212	FRCHLD24	3370412	FRCHLDM62	3371640
FRCHLD24	3370214	FRCHLD24	3370414	FRCHLDM62	3371642
FRCHLD24	3370216	FRCHLD24	3370416	FRCHLDM62	3374004
FRCHLD24	3370218	FRCHLD24	3370418	FRCHLDM62	3374006
FRCHLD24	3370220	FRCHLD24	3370502	GENBALAX6	3760102
FRCHLD24	3370222	FRCHLD24	3370504	GENBALAX6	3760202
FRCHLD24	3370224	FRCHLD24	3370506	GLASFL201	3800344
FRCHLD24	3370302	FRCHLD24	3370508	GLASFLH301	3800335
FRCHLD24	3370304	FRCHLD24	3370510	GLASFLH301	3800337
FRCHLD24	3370402	FRCHLD24	3370512	GLASFLH301	3800339
FRCHLD24	3370404	FRCHLD24	3370514	GLASFLH301	3800341
FRCHLD24	3370406	FRCHLD24	3370516	GROB 103CAT	1660202
FRCHLD24	3370408	FRCHLD24	3370518	GROB ASTIR	1660104
FRCHLD24	3370410	FRCHLD24	3370520	GRTLKS2T1	3910101
FRCHLD24	3370412	FRCHLD24	3370602	GRTLKS2T1	3910102
FRCHLD24	3370414	FRCHLD24	3370604	GRTLKS2T1	3910104
FRCHLD24	3370416	FRCHLD24	3370606	GRTLKS2T1	3910106
FRCHLD24	3370418	FRCHLD24	3370608	GRTLKS2T1	3910108
FRCHLD24	3370502	FRCHLD24	3370610	GRUMANG21	3951202
FRCHLD24	3370504	FRCHLD24	3370612	GRUMANG21	3951204
FRCHLD24	3370506	FRCHLD24	3370614	GRUMANG21	3951205
FRCHLD24	3370508	FRCHLD24	3370616	GRUMANTBM	3950308
FRCHLD24	3370510	FRCHLD24	3370618	GRUMANTBM	3950308



TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
GRUMANTBM	3950310	GULSTMAA1	0630610	HUGHES269	4470402
GRUMAVAA1	0630820	GULSTMAA1	0630710	HUGHES269	4470403
GRUMAVAA1	0631202	GULSTMAA1	0631206	HUGHES269	4470404
GRUMAVAA1	0632001	GULSTMAA1	0631214	HUGHES269	4470406
GRUMAVAA1	3960100	GULSTMAA5	0631410	HUGHES269	4470502
GRUMAVAA1	3960101	GULSTMAA5	3960105	HUGHES269	4470504
GRUMAVAA1	3960102	GULSTMAA5	3960106	HUGHES369	4470702
GRUMAVAA1	3960103	GULSTMAA5	3960107	HUGHES369	4470704
GRUMAVAA1	3960502	GULSTMAA5	3960124	HUGHES369	4470706
GRUMAVAA5	0632005	GULSTMG1159	*G1159	HUGHES369	4470718
GRUMAVAA5	3960104	GULSTMG1159	3953505	HUGHES369	4470720
GRUMAVG1159	3960302	GULSTMG1159	3953535	HUGHES369	4470722
GRUMAVG164	3952801	GULSTMG1159	3970109	HUGHES369	4470728
GRUMAVG164	3960201	GULSTMG159	3952202	HUGHES369	4470730
GRUMAVG164	3960202	GULSTMG44	*G44	HUGHES369	4470802
GRUMAVG164	3960203	GULSTMG44	3951502	HUGHES369	4470806
GRUMAVG164	3960204	GULSTMG44	3951504	HUGHES55	4471004
GRUMAVG164	3979904	GULSTMG44	3951506	HWKSLYDH104	*DH104
GRUMAVG164	8052214	GULSTMG44	3951508	HWKSLYDH104	2800402
GULSTM112	0144701	GULSTMGA7	3960401	HWKSLYDH104	2800404
GULSTM112	7630302	HELIO H295	4300802	HWKSLYDH104	2800405
GULSTM112	7630303	HELIO H295	4300803	HWKSLYDH104	2800408
GULSTM112	7630306	HELIO H295	4301101	HWKSLYDH104	2800410
GULSTM112	7630307	HELIO H295	4301102	HWKSLYDH104	2800412
GULSTM112	7630314	HELIO H295	4301104	HWKSLYDH104	2800414
GULSTM112	7630315	HELIO H391	4300102	HWKSLYDH104	2800416
GULSTM112	7630316	HELIO H391	4300104	HWKSLYDH104	2800417
GULSTM500	0141102	HELIO H391	4300106	HWKSLYDH104	2800418
GULSTM500	0141104	HELIO H395	4300202	HWKSLYDH104	2800420
GULSTM500	0141106	HELIO H395	4300204	HWKSLYDH125	*DH125
GULSTM500	0141107	HELIO H395	4300206	HWKSLYDH125	1500204
GULSTM500	0141108	HILLERUH12	4360102	HWKSLYDH125	4210101
GULSTM520	0141202	HILLERUH12	4360103	HWKSLYDH125	4210112
GULSTM580	0141402	HILLERUH12	4360104	HWKSLYDH125	4230102
GULSTM580	0141404	HILLERUH12	4360105	HWKSLYDH125	4230106
GULSTM580	0141406	HILLERUH12	4360106	HWKSLYDH125	4230110
GULSTM580	*680	HILLERUH12	4360107	HWKSLYDH125	4230112
GULSTM580	0141408	HILLERUH12	4360108	HWKSLYDH125	4230126
GULSTM580	0141602	HILLERUH12	4360109	HWKSLYDH125	4230130
GULSTM580	0141604	HILLERUH12	4360110	HWKSLYDH125	4230134
GULSTM580	0141606	HILLERUH12	4360111	HWKSLYDH125	4230138
GULSTM580	0141608	HILLERUH12	4360112	HWKSLYDH125	423013M
GULSTM580	0141610	HILLERUH12	4360113	HWKSLYDH125	423013P
GULSTM580	0141611	HILLERUH12	4360114	HWKSLYDH125	4230140
GULSTM580	0141612	HILLERUH12	4360115	HWKSLYDH125	4230158
GULSTM580	0141802	HILLERUH12	4360116	HWKSLYDH125	4230160
GULSTM580	7630513	HILLERUH12	4360117	HYNES B2	1440502
GULSTM580TP	0141712	HILLERUH12	4360118	HYNES B2	1440504
GULSTM580TP	0141714	HILLERUH12	4360119	HYNES B2	1440506
GULSTM580TP	0141716	HILLERUH12	4360120	HYNES B2	1440508
GULSTM580TP	0141718	HILLERUH12	4360121	INTRCP200	5650302
GULSTM590TC	3970404	HILLERUH12	4360122	INTRCP200	5650304
GULSTM590TP	0141720	HILLERUH12	4360124	INTRCP200	5650306
GULSTM590TP	0141722	HILLERUH12	4360125	INTRCP200	5650308
GULSTM590TP	3970410	HILLERUH12	4360126	INTRCP200	5650310
GULSTM590TP	3970411	HILLERUH12	4360127	ISRAEL1121	0142002
GULSTM590TP	7630515	HILLERUH12	4360128	ISRAEL1121	0142006
GULSTM590TP	7630516	HILLERUH12	4360129	ISRAEL1121	0142010
GULSTM590TP	7630517	HILLERUH12	4360130	ISRAEL1123	*1123
GULSTM590TP	7630518	HILLERUH12	4360135	ISRAEL1123	4500101
GULSTM590TP	7630519	HILLERUH12	4360809	ISRAEL1124	*1124
				ISRAEL1124	4500102
				ISRAEL1124	4500103

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
JBMSTRDGA15	4690502	LKHEED18	5261624	MEYERSOTW	5650208
JBMSTRDGA15	4690504	LKHEED18	5261632	MNCOUP90	5810102
JBMSTRDGA15	4690506	LKHEED18	5261634	MNCOUP90	5810104
JBMSTRDGA15	4690508	LKHEED18	5261636	MNCOUP90	5810107
JBMSTRDGA15	4690510	LKHEED18	5261638	MNCOUP90	5810108
JBMSTRDGA15	4690512	LKHEED18	5261640	MNCOUP90	5810110
JBMSTRDGA15	4690514	LKHEED18	5261642	MNCOUP90	5810130
JBMSTRDGA15	4690516	LKHEEDPV1	5260102	MNMITEM18	5870101
JBMSTRDGA15	4690518	LKHEEDPV1	5260106	MNMITEM18	5870102
LAIKFN10	5090204	LKHEEDT33	5260401	MNMITEM18	5870104
LAIKFN10	5090206	LKHEEDT33	5260402	MNMITEM18	5870106
LAIKFN10	5090208	LKHEEDT33	5260404	MNMITEM18	5870108
LEAR 23	*23	LKHEEDT33	5260406	MOONEYM20	5870202
LEAR 23	5170102	LUSCOM8	8190102	MOONEYM20	5870204
LEAR 24	*24	LUSCOM8	8190104	MOONEYM20	5870206
LEAR 24	5170302	LUSCOM8	8190106	MOONEYM20	5870208
LEAR 24	5170304	LUSCOM8	8190108	MOONEYM20	5870210
LEAR 24	5170306	LUSCOM8	8190110	MOONEYM20	5870212
LEAR 24	5170307	LUSCOM8	8190112	MOONEYM20	5870214
LEAR 24	5170309	LUSCOM8	8190114	MOONEYM20	5870219
LEAR 24	5170310	LUSCOM8	8190116	MOONEYM20	5870220
LEAR 24	5170311	LUSCOM8	8190118	MOONEYM20	5870302
LEAR 25	*25	LUSCOM8	8190120	MOONEYM20	5870304
LEAR 25	5170506	LUSCOM8	8190122	MOONEYM20	5870306
LEAR 25	5170509	LUSCOM8	8190124	MOONEYM20	5870308
LEAR 25	5170511	LUSCOM8	8190126	MOONEYM20	5870310
LEAR 25	5170513	LUSCOM8	8190128	MOONEYM20	5870312
LEAR 25	5170514	LUSCOM8	8190130	MOONEYM20	5870314
LEAR 35	*35	LUSCOM8	8190132	MOONEYM20	5870316
LEAR 35	5170600	LUSCOM8	8190154	MOONEYM20	5870601
LEAR 35	5170601	LUSCOM8	819019E	MOONEYM20	5870605
LEAR 35	5170602	MARTIN404	*404	MRCHTIS205	8120412
LEAR 55	5170702	MARTIN404	5450702	MTSBSIMU2	5780404
LET L13	1360306	MAULE M4	5460102	MTSBSIMU2	5780405
LKHEED12A	5261402	MAULE M4	5460104	MTSBSIMU2	5780406
LKHEED12A	5261404	MAULE M4	5460105	MTSBSIMU2	5780407
LKHEED12A	5261406	MAULE M4	5460106	MTSBSIMU2	5780408
LKHEED12A	5261408	MAULE M4	5460108	MTSBSIMU2	5780409
LKHEED12A	5261410	MAULE M4	5460112	MTSBSIMU2	5780410
LKHEED1329	*1329	MAULE M4	5460114	MTSBSIMU2	5780411
LKHEED1329	5263102	MAULE M4	5460116	MTSBSIMU2	5780412
LKHEED1329	5263104	MAULE M4	5460128	MTSBSIMU2	5780413
LKHEED1329	5263106	MAULE M4	5460130	MTSBSIMU2	5780414
LKHEED1329	5263108	MAULE M4	5460132	MTSBSIMU300	5780602
LKHEED1329	5263110	MAULE M5	5460133	MULTECD16	9230602
LKHEED1329	5263116	MAULE M5	5460134	MULTECD16	9230604
LKHEED1329	5263119	MAULE M5	5460135	MULTECD16	9230606
LKHEED1329	5263125	MAULE M5	5460204	MULTECD16	9230608
LKHEED18	5261602	MAULE M6	5460160	MULTECD16	9230610
LKHEED18	5261603	MCCULHJ2	5500604	MULTECD16	9230612
LKHEED18	5261604	MCLISHFUNKB	5480102	NAMER B25	6400702
LKHEED18	5261606	MCLISHFUNKB	5480104	NAMER B25	6400704
LKHEED18	5261608	MCLISHFUNKB	5480106	NAMER B25	6400705
LKHEED18	5261610	MCLISHFUNKB	5480108	NAMER B25	6400706
LKHEED18	5261612	MCLISHFUNKB	5480202	NAMER B25	6400708
LKHEED18	5261614	MCLISHFUNKB	5480204	NAMER B25	6400710
LKHEED18	5261616	MCLISHFUNKB	5480206	NAMER B25	6400712
LKHEED18	5261618	MCLISHFUNKB	5480208	NAMER B25	6400713
LKHEED18	5261620	MEYERSOTW	5650202	NAMER B25	6400714
LKHEED18	5261622	MEYERSOTW	5650204	NAMER B25	6400718
		MEYERSOTW	5650206	NAMER B25	6400719

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
NAMER F51	6402301	NAVIONNAVION	6150144	PIPER J3	7100521
NAMER F51	6402302	NAVIONNAVION	6150146	PIPER J3	7100522
NAMER F51	6402303	NAVIONNAVION	6150148	PIPER J3	7100524
NAMER F51	6402304	NAVIONNAVION	6150160	PIPER J3	7100525
NAMER F51	6402305	NAVIONNAVION	6150162	PIPER J3	7100526
NAMER F51	6402306	NAVIONNAVION	6150164	PIPER J3	7100527
NAMER F51	6402307	NAVIONNAVION	6150166	PIPER J3	7100528
NAMER F51	6402308	NAVIONNAVION	6150168	PIPER J3	710052P
NAMER F51	6402309	NAVIONNAVION	6150170	PIPER J3	710052Q
NAMER F51	6402310	NAVIONNAVION	6150172	PIPER J3	710052S
NAMER F51	6402314	NAVIONNAVION	6150174	PIPER J3	710052T
NAMER NA260	6402502	NAVIONNAVION	6150176	PIPER J3	7100530
NAMER NA260	6402504	NAVIONNAVION	6150178	PIPER J3	7100532
NAMER NA260	6402505	NORD SV4	6383006	PIPER J3	7100534
NAMER NA260	6402506	NORD SV4	8470102	PIPER J3	7100536
NAMER NA260	6402512	NORWT85	6480116	PIPER J3	7100538
NAMER T6	1922828	NORWT85	6480118	PIPER J3	7100540
NAMER T6	6400402	NORWT85	6480120	PIPER J3	7100541
NAMER T6	6400404	NORWT85	6480122	PIPER J3	7100542
NAMER T6	6400405	NORWT85	6480124	PIPER J3	7100544
NAMER T6	6400406	ORLHELH19	8141608	PIPER J3	7100546
NAMER T6	6400407	ORLHELH19	8141609	PIPER J3	7100548
NAMER T6	6400408	ORLHELH19	8141610	PIPER J3	7100550
NAMER T6	6400410	ORLHELH19	8141612	PIPER J3	7100552
NAMER T6	6400412	ORLHELH19	8141614	PIPER J3	7101102
NAMER T6	6400414	ORLHELH19	8141616	PIPER J3	7101104
NAMER T6	6400415	ORLHELH19	8141618	PIPER J4	7100602
NAMER T6	6400416	PICARDAX6	05604UH	PIPER J4	7100604
NAMER T6	6400417	PICARDAX6	7001218	PIPER J4	7100605
NAMER T6	6400418	PICARDAX6	700122A	PIPER J4	7100606
NAMER T6	6400419	PILATS84	7090103	PIPER J4	7100608
NAMER T6	6400420	PILATS84	7090104	PIPER J4	7100610
NAMER T6	6400422	PIPER 600	*600	PIPER J4	7100612
NAMER T6	6400423	PIPER 600	7106001	PIPER J4	7100614
NAMER T6	6400424	PIPER 600	7106002	PIPER J5	7100202
NAMER T6	6400426	PIPER 600	7106010	PIPER J5	7100204
NAMER T6	6400430	PIPER 600	7106011	PIPER J5	7100702
NAMER T6	6400431	PIPER 600	7106012	PIPER J5	7100704
NAMER T6	6400432	PIPER 600	7106015	PIPER J5	7100706
NAMER T6	6400434	PIPER 600	8360604	PIPER J5	7100708
NAMER T6	6400436	PIPER 600	8360605	PIPER J5	7100710
NAMER T6	6400441	PIPER 600	8360607	PIPER J5	7100712
NAMER T6	6400442	PIPER 600	8360608	PIPER PA12	7101202
NAVAL N3N	6120202	PIPER E2	7100302	PIPER PA12	7101204
NAVIONNAVION	6150104	PIPER J2	7100402	PIPER PA14	7101402
NAVIONNAVION	6150106	PIPER J2	7100412	PIPER PA15	7101502
NAVIONNAVION	6150108	PIPER J3	7100501	PIPER PA16	7101602
NAVIONNAVION	6150110	PIPER J3	7100502	PIPER PA16	7101604
NAVIONNAVION	6150112	PIPER J3	7100503	PIPER PA17	7101702
NAVIONNAVION	6150114	PIPER J3	7100504	PIPER PA18	7101802
NAVIONNAVION	6150116	PIPER J3	7100506	PIPER PA18	7101804
NAVIONNAVION	6150118	PIPER J3	7100508	PIPER PA18	7101806
NAVIONNAVION	6150120	PIPER J3	7100509	PIPER PA18	7101808
NAVIONNAVION	6150122	PIPER J3	7100510	PIPER PA18	7101809
NAVIONNAVION	6150130	PIPER J3	7100511	PIPER PA18	7101810
NAVIONNAVION	6150132	PIPER J3	7100512	PIPER PA18	7101811
NAVIONNAVION	6150134	PIPER J3	7100514	PIPER PA18	7101812
NAVIONNAVION	6150136	PIPER J3	7100516	PIPER PA18	7101813
NAVIONNAVION	6150138	PIPER J3	7100518	PIPER PA18	7101814
NAVIONNAVION	6150140	PIPER J3	7100519	PIPER PA18	7101815
NAVIONNAVION	6150142	PIPER J3	7100520	PIPER PA18	7101816

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
PIPER PA18	7101818	PIPER PA25	7102508	PIPER PA31	7103105
PIPER PA18	7101820	PIPER PA28	7102510	PIPER PA31	7103110
PIPER PA18	7101822	PIPER PA28	7102801	PIPER PA31	7103120
PIPER PA18	7101824	PIPER PA28	7102802	PIPER PA31T	7103124
PIPER PA18	7101826	PIPER PA28	7102803	PIPER PA31T	7103126
PIPER PA18	7101828	PIPER PA28	7102804	PIPER PA31T	7103127
PIPER PA18	7101830	PIPER PA28	7102805	PIPER PA31T	7103128
PIPER PA18	7101832	PIPER PA28	7102806	PIPER PA32	7103118
PIPER PA18	7101834	PIPER PA28	7102807	PIPER PA32	7103206
PIPER PA18	7101836	PIPER PA28	7102808	PIPER PA32	7103207
PIPER PA18	7101837	PIPER PA28	7102809	PIPER PA32	7103208
PIPER PA18	7101838	PIPER PA28	7102810	PIPER PA32	7103209
PIPER PA18	7101880	PIPER PA28	7102811	PIPER PA32	7103210
PIPER PA18	7101902	PIPER PA28	7102812	PIPER PA32	7103211
PIPER PA18	7101903	PIPER PA28	7102813	PIPER PA32	7103212
PIPER PA18	7101904	PIPER PA28	7102814	PIPER PA32	7103213
PIPER PA18	7101906	PIPER PA28	7102815	PIPER PA32	7103214
PIPER PA20	7102002	PIPER PA28	7102816	PIPER PA32	7103215
PIPER PA20	7102004	PIPER PA28	7102817	PIPER PA32	7103218
PIPER PA20	7102006	PIPER PA28	7102818	PIPER PA32	7103220
PIPER PA20	7102008	PIPER PA28	7102819	PIPER PA32	7103222
PIPER PA20	7102010	PIPER PA28	7102824	PIPER PA34	*PA34
PIPER PA20	7102012	PIPER PA28	7102830	PIPER PA34	7103404
PIPER PA20	7102018	PIPER PA28	7102510	PIPER PA34	7103405
PIPER PA22	7102202	PIPER PA28	7102801	PIPER PA34	7103406
PIPER PA22	7102203	PIPER PA28	7102802	PIPER PA34	7103407
PIPER PA22	7102204	PIPER PA28	7102803	PIPER PA34	7103408
PIPER PA22	7102206	PIPER PA28	7102804	PIPER PA34	7103420
PIPER PA22	7102208	PIPER PA28	7102805	PIPER PA36	7103602
PIPER PA22	7102210	PIPER PA28	7102806	PIPER PA36	7103610
PIPER PA22	7102212	PIPER PA28	7102807	PIPER PA36	7103612
PIPER PA22	7102214	PIPER PA28	7102808	PIPER PA36	7103614
PIPER PA22	7102216	PIPER PA28	7102809	PIPER PA36	7103620
PIPER PA22	7102202	PIPER PA28	7102810	PIPER PA38	7103812
PIPER PA22	7102203	PIPER PA28	7102811	PIPER PA42	7104202
PIPER PA22	7102204	PIPER PA28	7102812	PIPER PA44	*PA44
PIPER PA22	7102206	PIPER PA28	7102813	PIPER PA44	7104402
PIPER PA22	7102208	PIPER PA28	7102814	PIPER PA44	7104404
PIPER PA22	7102210	PIPER PA28	7102815	PROPT200	0140302
PIPER PA22	7102212	PIPER PA28	7102816	PROPT200	0140304
PIPER PA22	7102214	PIPER PA28	7102817	PROPT200	0140306
PIPER PA22	7102216	PIPER PA28	7102818	PROPT200	0140308
PIPER PA23	*PA23	PIPER PA28	7102819	PROPT200	0140312
PIPER PA23	7102302	PIPER PA28	7102824	PROPT200	0140314
PIPER PA23	7102303	PIPER PA28	7102830	RAVEN RX6	7480502
PIPER PA23	7102304	PIPER PA30	*PA30	RAVEN S50	05604XT
PIPER PA23	7102305	PIPER PA30	7103002	RAVEN S50	05604XW
PIPER PA23	7102306	PIPER PA30	7103015	RAVEN S50	7480202
PIPER PA23	7102308	PIPER PA30	7103902	RAVEN S50	7480204
PIPER PA23	7102309	PIPER PA30	7104002	RAVEN S55	7480402
PIPER PA23	7102310	PIPER PA31	*PA31	RAVEN S80	0560477
PIPER PA24	7102402	PIPER PA31	7103102	RAVEN S80	7480604
PIPER PA24	7102403	PIPER PA31	7103103	RAVEN S80	7480608
PIPER PA24	7102404	PIPER PA31	7103104	RAVEN S80	7480610
PIPER PA24	7102406	PIPER PA31	7103105	RAVEN S86	7480612
PIPER PA24	7102407	PIPER PA31	7103110	RAVEN S86	7480615
PIPER PA24	7102408	PIPER PA31	7103120	RKWE1500	*500
PIPER PA24	7102409	PIPER PA31	*PA31	RKWE1500	7630410
PIPER PA25	7102502	PIPER PA31	7103102	RKWE1NA265	*NA265
PIPER PA25	7102503	PIPER PA31	7103103	RKWE1NA265	6402602
PIPER PA25	7102504	PIPER PA31	7103104	RKWE1NA265	6402604

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
RKWE LNA265	6402606	SCWZERSG1	8050114	SLINDS100	9550102
RKWE LNA265	6402608	SCWZERSG1	8050116	SLINDS100	9550104
RKWE LNA265	6402610	SCWZERSG1	8050118	SLINDS100	9550112
RKWE LNA265	6402612	SCWZERSG1	8050120	SMITH 600	1710602
RKWE LNA265	6402614	SCWZERSG1	8050122	SMITH 600	1710606
RKWE LNA265	6402618	SCWZERSG1	8050124	SMITH 600	8360602
RKWE LNA265	7360108	SCWZERSG1	8050146	SMITH 600	8360606
RKWE LNA265	7630101	SCWZERSG1	8050147	SMITH 600	8360802
RKWE LNA265	7630104	SCWZERSG1	8050148	SMITH 600	8360806
RKWE LNA265	7630106	SCWZERSG1	8050149	SNIAS 350	8680801
RKWE LNA265	7630107	SCWZERSG1	8050151	SNIAS 350	8680803
RKWE LNA265	7630108	SCWZERSG1	8050153	SNIAS 350	8680804
ROBSINR22	7640102	SCWZERSG1	8050501	SNIAS SA318	8680208
ROLSCHLS	3801206	SCWZERSG1	8050502	SNIAS SA318	8680506
ROLSCHLS	3801208	SCWZERSG1	8050504	SNIAS SA318	8680508
ROLSCHLS	3801211	SCWZERSG1	8050515	SNIAS SA318	8680511
ROLSCHLS	3801214	SCWZERSG1	8053604	SNIAS SA318	8680514
ROLSCHLS	3801250	SCWZERSG2	8050202	SNIAS SA318	8680516
RYAN ST3	7830502	SCWZERSG2	8050204	SNIAS SA341	8680610
RYAN ST3	7830504	SCWZERSG2	8050206	SOCATAMS894	8402842
RYAN ST3	7830506	SCWZERSG2	8050210	SOCATARALLYE	8400125
RYAN STA	7830402	SCWZERSG2	8050602	SOCATARALLYE	8400131
RYAN STA	7830404	SCWZERSG2	8050604	SPHRTHCIRRUS	38019VC
SCHLERASW12	3801508	SCWZERSG2	8050606	SPHRTHCIRRUS	38019VE
SCHLERASW15	38015H2	SCWZERSG2	8050608	SPHRTHNIMBUS	3801923
SCHLERASW15	38015HZ	SCWZERSG2	8050610	SPHRTHNIMBUS	3801925
SCHLERASW20	3801503	SCWZERSG2	8050612	SPHRTHNIMBUS	3801950
SCHLERASW20	3801505	SCWZERSG2	8050614	SPHRTHNIMBUS	38019VD
SCHLERASW20	3801506	SCWZERSG2	8051404	SPHRTHNIMBUS	38019VF
SCHLERK8	3801559	SCWZERSG2	8051604	SPHRTHNIMBUS	38019VG
SCHLERK8	3801563	SCWZERSG2	8051606	SPHRTHNIMBUS	38019VJ
SCHLERK8	3801567	SEMCO CLNGER	8070802	SPHRTHVENTUS	3802050
SCHLERK8	38019VK	SEMCO MODEL T	8071701	SPHRTHVENTUS	3802051
SCHLERK8	38019VL	SKRSKYS55	8141602	STBROSSD3	*SD3
SCHLERKA6	3801525	SKRSKYS55	8141604	STBROSSD3	8100602
SCHLERKA6	3801528	SKRSKYS55	8141606	STNSON10	8632002
SCHLERKA6	3801530	SKRSKYS55	8141615	STNSON10	8632004
SCHLERKA6	3801533	SKRSKYS55	814161E	STNSON10	8632102
SCHLERKA6	3801535	SKRSKYS55	814161G	STNSON10	8632104
SCHLERKA6	3801536	SKRSKYS55	814161J	STNSON10	8632106
SCHLERKA6	3801537	SKRSKYS55	8141622	STNSON10	8632020
SCHLERKA6	3801540	SKRSKYS55	8141630	STNSONL5	8630204
SCHLERKA6	3801542	SKRSKYS55	8141632	STNSONL5	8630206
SCHLERKA6	3801545	SKRSKYS58	8141801	STNSONL5	8630208
SCHLERKA6	3801554	SKRSKYS58	8141802	STNSONL5	8630210
SCWZERG164	3952702	SKRSKYS58	8141804	STNSONL5	8630212
SCWZERG164	3952704	SKRSKYS58	8141806	STNSONL5	8630214
SCWZERG164	3952802	SKRSKYS58	8141808	STNSONSR9	8631502
SCWZERG164	3952803	SKRSKYS58	8141809	STNSONSR9	8631504
SCWZERSG1	8050101	SKRSKYS58	8141814	STNSONSR9	8631506
SCWZERSG1	8050102	SKRSKYS58	8141815	STNSONSR9	8631508
SCWZERSG1	8050103	SKRSKYS58	8141816	STNSONSR9	8631510
SCWZERSG1	8050104	SKRSKYS58	8141831	STNSONSR9	8631512
SCWZERSG1	8050105	SKRSKYS58	8141836	STNSONSR9	8631514
SCWZERSG1	8050108	SKRSKYS78	8143006	STNSONSR9	8631516
SCWZERSG1	8050107	SKRSKYS78	8143010	STNSONSR9	8631518
SCWZERSG1	8050108	SLINDS100	0140202	STNSONSR9	8631520
SCWZERSG1	8050110	SLINDS100	0140203	STNSONSR9	8631522
SCWZERSG1	8050111	SLINDS100	0140204	STNSONSR9	8631524
SCWZERSG1	8050112	SLINDS100	0140208	STNSONSR9	8631526
SCWZERSG1	8050113	SLINDS100	0140210	STNSONSR9	8631528

TABLE D-1. SDR AIRCRAFT GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA
STNSONV77	8631802	TCRAFTBC	9230902	UNIVAR108	9230414
STNSONV77	8631804	TCRAFTBC	9230904	UNIVAR108	9230416
STOLAMRC3	3080202	TCRAFTBC	9230906	UNIVAR108	9230418
STOLAMRC3	3080203	TCRAFTBC	9230908	UNIVAR415	0420102
STOLAMRC3	3080204	TCRAFTBC	9230910	UNIVAR415	0420104
STOLAMRC3	3080206	TCRAFTBC	9230912	UNIVAR415	0420202
STOLAMRC3	5410102	TCRAFTBC	9230914	UNIVAR415	0420204
SUPAC LA	8730202	TCRAFTBC	9230916	UNIVAR415	0420302
SUPAC LA	8730204	TCRAFTBC	9230918	UNIVAR415	0420304
SUPAC LA	8730206	TCRAFTBC	9230920	UNIVAR415	0420306
SUPAC LA	8730208	TCRAFTBC	9230922	UNIVAR415	0420308
SUPAC V	8730302	TCRAFTBC	9230924	UNIVAR415	0420310
SUPAC V	8730304	TCRAFTBC	9230926	UNIVAR415	0420312
SUPAC V	8730306	TCRAFTBC	9230928	UNIVAR415	0420314
SUPAC V	8730308	TCRAFTBF	8850326	UNIVAR415	0420316
SWRNGNSA226	*SA226	TCRAFTBF	8850330	UNIVAR415	0420318
SWRNGNSA226	8780122	TCRAFTBF	8850332	UNIVAR415	0420320
SWRNGNSA226	8780402	TCRAFTBF	8850334	UNIVAR415	0420322
SWRNGNSA226	8780404	TCRAFTBF	8850336	UNIVAR415	0420324
SWRNGNSA226	8780405	TCRAFTBF	8850338	UNIVAR415	0420326
SWRNGNSA226	8780406	TCRAFTBF	8850340	UNIVAR415	0420328
SWRNGNSA226	*SA226	TCRAFTBF	8850344	UNIVAR415	0420330
SWRNGNSA226	8780122	TCRAFTBL	8850346	UNIVAR415	0420332
SWRNGNSA226	8780402	TCRAFTBL	8850348	UNIVAR415	0420334
SWRNGNSA226	8780404	TCRAFTBL	8850350	UNIVAR415	0420336
SWRNGNSA226	8780405	TCRAFTBL	8850354	UNIVAR415	0420338
SWRNGNSA226	8780406	TCRAFTBL	8850356	UNIVAR415	0420340
SWRNGNSA227	8780603	TEMCO 11A	8890402	UNIVAR415	0420402
SWRNGNSA227	8780610	TEMCO 11A	8890404	UNIVAR415	0420404
SWRNGNSA227	8780615	THUNDRA7	8970105	UNIVAR415	0420406
SWRNGNSA227	8780620	THUNDRA7	8970106	UNIVAR415	0420408
SWRNGNSA26	*SA26	THUNDRA7	8970107	UNIVAR415	0420410
SWRNGNSA26	8780102	THUNDRA7	8970108	UNIVAR415	0420502
SWRNGNSA26	8780112	THUNDRA7	8970110	UNIVAR415	0420504
TCRAFKD	8850402	THUNDRA7	8970120	UNIVAR415	0420702
TCRAFKD	8850404	TRYTEK65	0190406	UNIVAR415	0420722
TCRAFKD	8850406	TRYTEK65	0190712	UNIVAR415	0540102
TCRAFKD	8850408	TRYTEK65	0190714	UNIVAR415	0540104
TCRAFKD	8850410	TRYTEK65	0190716	UNIVAR415	5872014
TCRAFKD	8850412	TRYTEK65	0190718	UNIVAR415	5872018
TCRAFKD	8850414	TRYTEK65	0190920	VARGA 2150	5940202
TCRAFKD	8850415	TRYTEK65	0190922	VARGA 2150	5940204
TCRAFKD	8850416	TRYTEK65	0190924	VARGA G21	9350102
TCRAFKD	8850418	TRYTEK65	0190926	VICKER745	9470204
TCRAFKD	8850420	TRYTEK65	0190928	VICKER745	9470402
TCRAFKD	8850422	TRYTEK65	0190930	VICKER745	9470404
TCRAFKD	8850448	TRYTEK65	0190932	VICKER745	9470602
TCRAFTA	8850202	TRYTEK65	0190934	WACO ASO	9601202
TCRAFTBC	8850302	TRYTEKK	0190402	WACO GXE	9600702
TCRAFTBC	8850304	TRYTEKK	0190404	WACO R	9600304
TCRAFTBC	8850306	UNIVACGC1	9230102	WACO R	9600422
TCRAFTBC	8850308	UNIVACGC1	9230104	WACO UPF7	9601302
TCRAFTBC	8850310	UNIVACGC1	9230106	WACO UPF7	9601304
TCRAFTBC	8850314	UNIVACGC1	9230108	WACO YK	9600816
TCRAFTBC	8850316	UNIVACGC1	9230110	WACO YK	9600818
TCRAFTBC	8850318	UNIVACGC1	9230112	WACO YK	9600832
TCRAFTBC	8850320	UNIVAR108	9230402	WACO YK	9600834
TCRAFTBC	8850321	UNIVAR108	9230404	WACO YK	9600835
TCRAFTBC	8850322	UNIVAR108	9230406	WACO YK	9600838
TCRAFTBC	8850323	UNIVAR108	9230408	WACO YK	9600838
TCRAFTBC	8850324	UNIVAR108	9230412	WACO YK	9600840
				WSK M18	9810102
				WTHRLY201	9630404
				WTHRLY201	9630406
				WTHRLY201	9630408
				WTHRLY201	9630410

## APPENDIX E

### SDR ENGINE GROUP NAME - FAA MANUFACTURER/MODEL CODE TABLE

THE FOLLOWING TABLE SHOWS THE CORRESPONDENCE BETWEEN THE SERVICE DIFFICULTY REPORTING (SDR) ENGINE GROUP NAMES AND THE FAA ENGINE MANUFACTURER/MODEL (MM) CODES AND APPEARS IN ALPHABETICAL ORDER BY SDR NAME. THE SDR NAMES COMBINE MM CODES FOR ENGINES OF SIMILAR DESIGN INTO GROUPS FOR ANALYTICAL PURPOSES. THE TABLE CONTAINS ENTRIES FOR ALL THE SDR NAMES APPEARING IN THE ENGINE STATISTICS TABLE IN THE BODY OF THIS REPORT.

TABLE E-1. SDR ENGINE GROUP NAME - FAA MANUFACTURER/MODEL CODES

SDR	FAA	SDR	FAA	SDR	FAA
ALLSN 250C	03002	GE CF700	30010	OTHER	*AVON
ALLSN 250C	03011	GE CJ610	*CJ61	OTHER	*BAST
ALLSN 250C	03013	GE CJ610	30002	OTHER	*CF6
ALLSN 501D	*501D	GE CJ610	30006	OTHER	*CJ80
ALLSN 501D	03004	GE CJ805	*CJ80	OTHER	00585
ALLSN 501D	03005	GE CJ305	30004	OTHER	01505
ALLSN 501D	03006	GE CT58	*CT58	OTHER	03003
AMTRMCMCCULH	42501	GE CT58	30001	OTHER	03010
AMTRVWVQLKS	63501	GE CT58	30008	OTHER	03012
ARSRCHTFE731	*TFE7	GLADENK5	37503	OTHER	04501
ARSRCHTFE731	01518	GLADENR5	37504	OTHER	13802
ARSRCHTPE331	*TPE3	JACOBPR755	35006	OTHER	17013
ARSRCHTPE331	01502	JACOBPR755	35007	OTHER	17030
ARSRCHTPE331	01506	JACOBPR755	35008	OTHER	17033
ARSRCHTPE331	01508	JACOBPR755	35003	OTHER	20003
ARSRCHTPE331	01510	JACOBPR755	35005	OTHER	26002
ARSRCHTPE331	01512	JACOBPR755	35005	OTHER	27005
CONT 6285	17038	LYC 0540	41532	OTHER	27011
CONT 975	17037	LYC LTS101	41560	OTHER	27026
CONT A40	17001	LYC 0145	41501	OTHER	27033
CONT A50	17002	LYC 0145	41502	OTHER	27033
CONT A65	17003	LYC 0145	41503	OTHER	27036
CONT A75	17005	LYC 0235	41505	OTHER	30005
CONT A80	17006	LYC 0290	41506	OTHER	30020
CONT C125	17011	LYC 0320	41500	OTHER	31701
CONT C145	17012	LYC 0320	41508	OTHER	37002
CONT C35	17008	LYC 0320	41509	OTHER	41549
CONT C90	17009	LYC 0340	41510	OTHER	41555
CONT E185	17014	LYC 0360	41511	OTHER	51001
CONT E225	17015	LYC 0360	41513	OTHER	52001
CONT 0200	17020	LYC 0360	41514	OTHER	52047
CONT 0300	17022	LYC 0360	41515	OTHER	52053
CONT 0300	17024	LYC 0360	41522	OTHER	54501
CONT 0360	17023	LYC 0360	41524	OTHER	54510
CONT 0360	17025	LYC 0435	*0435	OTHER	54517
CONT 0360	17033	LYC 0435	41516	OTHER	60002
CONT 0470	*0470	LYC 0435	41517	OTHER	60004
CONT 0470	17026	LYC 0435	41518	OTHER	60005
CONT 0470	17027	LYC 0435	41519	OTHER	60008
CONT 0470	17028	LYC 0435	41520	OTHER	60009
CONT 0470	17029	LYC 0435	41521	OTHER	60012
CONT 0520	*0520	LYC 0435	41522	OTHER	60014
CONT 0520	17032	LYC 0435	41523	OTHER	60020
CONT 0520	17035	LYC 0435	41525	OTHER	60030
CONT 0520	17040	LYC 0480	41526	OTHER	60030
CONT R670	17016	LYC 0480	41527	OTHER	99999
CONT R670	17018	LYC 0540	*0540	OTHER	BE US
DHAVXXGIPSY	20004	LYC 0540	41355	OTHER	49001
FCD 8440	26003	LYC 0540	41530	OTHER	*JT12
FRNKLN4AC150	27002	LYC 0540	41531	PWA JT12	52042
FRNKLN4AC150	27003	LYC 0540	41532	PWA JT15	52060
FRNKLN4AC150	27004	LYC 0540	41533	PWA JT15	52112
FRNKLN4AC176	27009	LYC 0540	41534	PWA JT3C	*JT3C
FRNKLN4AC176	27007	LYC 0540	41535	PWA JT3C	52036
FRNKLN4AC199	27006	LYC 0540	41538	PWA JT3D	*JT3D
FRNKLN4AC199	27009	LYC 0541	41536	PWA JT3D	52039
FRNKLN4AC199	27010	LYC 0541	41539	PWA JT4	*JT4
FRNKLNBA4150	27024	LYC 0720	41546	PWA JT4	52037
FRNKLNBA4165	27025	LYC R680	41540	PWA JT8	*JT8
FRNKLNBA4200	27027	LYC R680	41541	PWA JT8	52044
FRNKLNBA8215	27030	LYC R680	41542	PWA JT8	52046
FRNKLNBAV335	27020	LYC R680	41543	PWA JT8	52048
FRNKLNBAV350	27043	LYC R680	41544	PWA JT8	52049
FRNKLNBSV335	27040	LYC R680	41545	PWA JT8	52051
FRNKLNQ3356	27033	LYC T53	41552	PWA JT9	*JT9
GE CF700	*CF70	MNASCOC4	43504		
		ONAN B48	99999		



TABLE E-1. SDR ENGINE GROUP NAME - FAA MANUFACTURER/MODEL CODES  
(CONTINUED)

SDR	FAA	SDR	FAA	SDR	FAA	
PWA	JT9	02050	RROYCEDART	*DART	WRIGHTR1820	*R182
PWA	JT9	52050	RROYCEDART	54503	WRIGHTR1820	67018
PWA	PT6	*PT6	RROYCEDART	54504	WRIGHTR1820	67019
PWA	PT6	52043	RROYCEDART	54505	WRIGHTR1820	67021
PWA	PT6	52403	RROYCEDART	54506	WRIGHTR1820	67024
PWA	PT6	61501	RROYCEDART	54507	WRIGHTR1820	67025
PWA	PT6	61503	RROYCEDART	54508	WRIGHTR1820	67026
PWA	PT6	61504	RROYCEDART	54509	WRIGHTR1820	67027
PWA	PT6	61506	RROYCEDART	54522	WRIGHTR1820	67028
PWA	PT6T	52045	RROYCEDART	54553	WRIGHTR1820	67029
PWA	PT6T	61502	RROYCEGIPSY	20005	WRIGHTR2600	67030
PWA	R1340	*R134	RROYCEGIPSY	20006	WRIGHTR2600	67031
PWA	R1340	52009	RROYCEGIPSY	20007	WRIGHTR2600	67050
PWA	R1340	52010	RROYCEGIPSY	20008	WRIGHTR3350	*R335
PWA	R1340	52011	RROYCERB211	*RB21	WRIGHTR3350	67032
PWA	R1340	52012	RROYCERB211	44554	WRIGHTR3350	67033
PWA	R1340	52016	RROYCERB211	54554	WRIGHTR3350	67034
PWA	R1830	*R183	RROYCESPEY	*SPEY	WRIGHTR3350	67037
PWA	R1830	52017	RROYCESPEY	54519	WRIGHTR3350	67038
PWA	R1830	52018	RROYCESPEY	54521	WRIGHTR760	67009
PWA	R1830	52019	RROYCESPEY	54523	WRIGHTR760	67010
PWA	R1830	52020	RROYCEVIPER	*VIPE	WRIGHTR760	67011
PWA	R2000	*R200	RROYCEVIPER	10201	WRIGHTR975	67012
PWA	R2000	52021	RROYCEVIPER	54550	WRIGHTR975	67015
PWA	R2000	52023	RROYCEVIPER	54552		
PWA	R2800	*R280	TMECA ARTST3	60003		
PWA	R2800	52024	TMECA AST14T	60014		
PWA	R2800	52025	TMECA AST2T	60006		
PWA	R2800	52026	TMECA AST3T	60007		
PWA	R985	*R985	WARNER185	64504		
PWA	R985	52006	WARNER185	64505		
PWA	R985	52007	WARNER50	64503		
PWA	R985	52008	WRIGHTJ5	67007		

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